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# *The Frank Peach*

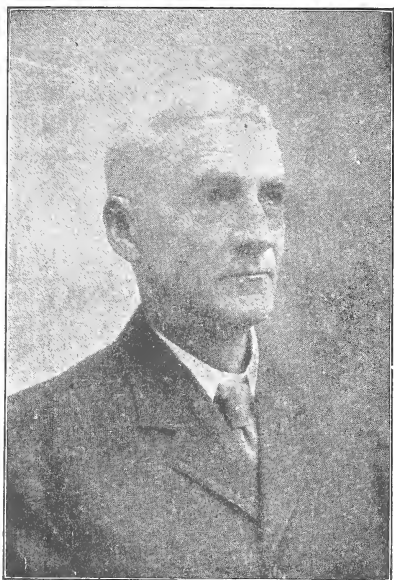


2/3 NATURAL SIZE

Originated by  
**J. W. Stubenrauch**  
Mexia, Texas

Introduced by  
**T. V. Munson & Son**  
Denison, Texas

CATALOG, 1915-1916  
**The Munson Nurseries**  
Denison, Texas



1843 — 1913.

# Foundations *of* American Grape Culture

By  
**T. V. MUNSON,**  
Denison, Texas.

## The Best Work on Grapes Published in the United States

This magnificent book is a monument that will perpetuate the memory of one who spent his noble life in the study of this fascinating subject, the Grape. It was indeed fortunate that the author put together in book form the results of his life work. Had he delayed it five years longer from the date of its publication (1908) the world would have been the loser.

This work has taken its place as the best book on grape culture in America, as is evidenced by the many highly complimentary testimonials from men who stand high in the viticultural world, as well as botanists, vineyardists, and amateur grape growers.

The book is strongly bound in buckram, with beautiful title on cover, embossed in gold. It is printed upon fine glazed paper, giving most beautiful, clear impressions of type and halftone full page engravings, 90 in number, 252 pages in all,  $7\frac{1}{2} \times 10$  inches. The book contains 8 chapters upon the different divisions of the subject, as follows: I. Botany of American Grapes. II. Breeding of Varieties of Grapes. III. Description of Varieties. IV. Adaption of Varieties. V. How to Start a Vineyard, including Trellising, Pruning, Training, etc. VI. Protecting the Vineyard from Insects and Fungi. VII. Disposition of the Crop. VIII. The Grape for Home Adornment, Shade, Fruit and Health.

The book securely packed will be sent by parcels post or express prepaid to any part of the United States, Canada, Mexico, Cuba and Porto Rico, for \$2.00. To European countries, and other countries of the Postal Union, the book will be sent by registered mail prepaid for \$2.25.

We have put in pamphlet form Chapters V and VI of this book. These two chapters are on the Culture of the Grape. This pamphlet is furnished free to purchasers of grape vines to the amount of \$2.00 or more. See offer under "Grapes," page 17. The pamphlet alone, 20 cents; the complete book, \$2.00.

### Address

**T. V. MUNSON & SON,**  
Publishers

Roosevelt County, New Mexico, March 25, 1915.

Grapes best stock by far I have ever received from any other nursery. I am well pleased with the treatment accorded me, and regret that I did not order more persimmon. All other nurseries have sent straight poles, which we never put out; yours are well rooted.

Yours truly, J. C. ESTLACK.

## Introductory

### **To Our Numerous, Intelligent, Discriminating Customers:**

It is with pleasure we hand you this our 1915-16 catalog of THE MUNSON NURSERIES. We are grateful to our many friends and customers for their support in the past. It will be our purpose and aim to improve on the past, and we will be thankful for the continued support of all our old customers as well as many new ones.

**THE FOLLOWING CAREFUL, TRUTHFUL DESCRIPTIONS** are of far more value in making successful selections than would be the grandest set of pictures that could be executed. Therefore, study the descriptions, and preserve this Catalog, for it will be found a most valuable horticultural work of reference. Our methods of propagation are those pursued by the largest, most intelligent, and most successful planters of commercial orchards.

### **OUR VARIETIES.**

Our policy is to grow as few varieties of each class of fruit as will cover the entire season with suitable and choice varieties. In doing this we have retained the very best. There is not a poor or indifferent variety in our list; you can depend on that. There are many varieties so nearly alike that to retain all would be a burden upon our customers, the horticultural interests and ourselves, so in compiling our lists we have dropped all of the so-near-alike sorts except the one or two which we consider the best.

**IN SOME CASES** varieties heretofore included in our Catalog are omitted. Some of these are dropped, as others included are better for the same season, and of some we have no stock to offer this year; such may be inserted when we again have stock of them. Please do not order varieties not named in this Catalog.

**WHILE WE HAVE A REPUTATION FOR MAKING A SPECIALTY OF GRAPES** we have by no means neglected other departments or classes of fruits in our line of business. All have had the same vigilant care in testing, selecting, and propagation, so that we will be found up with the times in all things.

**IN OUR EXPERIMENTAL DEPARTMENT** we systematically test all new, very promising varieties as they come out, and ourselves originate numerous varieties of grapes, plums, persimmons, etc. By carefully combining the best strains and testing for a series of years in various localities, we from time to time introduce those proving superior to others in cultivation of the same season.

### **NO AGENTS.**

We employ no traveling or resident agents. We deal direct with all and each of our customers. By this method we save our customers from 25 to 80 per cent over prices agents are compelled to charge in order to maintain themselves. By our method of direct dealing our customer can order at any time as best suits him and the stock comes carefully packed in an individual bale or box direct from the nursery, and the customer is not bothered with annoyance of being solicited out of season with agents who oftentimes carry highly exaggerated pictures or samples in magnifying jars. Also our customers are not required to receive their stock on a certain "delivery day," which oftentimes come when the customer is not prepared to receive stock or comes in the very worst of weather.

Those who claim to be our agents are frauds, and when we learn of such frauds, using our reputation to gain orders, we will publish them for protection of our customers and ourselves. Also beware of agents of other nurseries who circulate false and damaging reports about our nurseries and business, such as "they busted up," "sold out," "gone out of business," etc.

### **OUR CATALOG.**

while not large and showy as some, is nevertheless full of valuable information, and we ask its careful reading throughout. The **careful, truthful**, though brief, descriptions are of far more value in making successful selections than would be the grandest set of more or less exaggerated pictures. Therefore study the descriptions and preserve this catalog.

### **OUR SHIPPING FACILITIES**

in every direction from Denison are most excellent. We have the following railways:

Misouri, Kansas & Texas Ry., operating Ammerican Express.  
Houston & Texas Central Ry., operating Wells Fargo Express.  
Texas & Pacific Ry., operating Wells Fargo Express.  
Frisco System, operating Wells Fargo Express.  
Missouri, Oklahoma & Gulf Ry., operating Wells Fargo Express.  
Texas Traction Company, operating Electric Express.

**T. V. MUNSON & SON,**  
**DENISON, TEXAS**



## Please Read the Following

### Terms, Conditions, Shipping, Etc.

**1. Cash** (By Draft, Money Order, or Registered Letter) with order will secure prompt filling. No goods shipped unless **Cash or Satisfactory Security Accompanies** the order. If personal checks are sent, include 15 cents for collection, which amount they cost us.

**2. To Secure Goods Not Wanted Sent at Once**, send one-half the cost with the order. No reserve will be made otherwise. **Goods will be shipped "C. O. D."** only when one-half payment is sent with order, or satisfactory proof of reliability is furnished.

**3. Our Responsibility ceases** after delivery, except for mistakes in filling, which must be reported **immediately** after receipt of goods, to admit of adjustment. A double system of checking is employed in putting up orders, so that mistakes are rare, and sometimes customers complain of an error and afterwards find it was their own mistake.

**4. Substitution.** If it is not explicitly stated in the order that no substitution is permitted in case the variety ordered is sold out, we shall consider permission to substitute granted, and then put in place of the variety ordered, always with its correct name, and one of equal or better value, unless such is not in stock, when the variety will be left unfilled and the money for it returned.

**5.** In order to secure what you wish, send your order early in the season, before stock is sold. Orders received late in the season may expect to find assortments broken in any nursery.

**6.** Please do not order articles not named in Catalog. We catalog only what we have for sale, and aim to sell only what we produce.

**7. Customers Will Generally Be Most Successful** in getting desirable assortments by leaving the selection, in part at least, to us, as we have much experience in testing and growing for market; but we desire everyone to have his or her choice as nearly as possible.

**8. GUARANTEE AND RESPONSIBILITY**—We send out thrifty and healthy stock, properly packed and in good condition, take railroad or express receipt "in good order," and are not responsible for losses or damages caused by delays. We do not replace trees that die under conditions over which we have no control, such as drouths, freezes, excessive rains, unsuitable soils, improper handling, and after-care. While we exercise the greatest care to have all our trees and plants true to label, and agree to replace all such as may by accident or oversight prove untrue to name, free of charge, it is mutually agreed and understood between the purchaser and ourselves that our guarantee of genuineness shall not in any case make us liable for any sum greater than originally received for such untrue trees or plants.

**9. It Is to Our Own Interest** to give customers the best terms and selections possible. But we cannot prevent Drouths, Severe Winters, Early and Late Frosts, Insects and Rabbits, etc., from cutting, nor plants from dying by bad treatment in other hands, **hence we never insure Trees to live after leaving our possession**, but we do deliver stock in good order, true to name. In case we fail in these, we replace at once or refund money. After stock is accepted, we replace none that may die after planting. Unsatisfactory stock must be reported at once on receipt of same to secure adjustment.

**10. We Are Responsible to All of Our Customers**, and to them only, for the character of the goods, and to them or their forwarders—express and railway companies—we guarantee to deliver stock in good order, true to name. With such delivery our responsibility ceases.

**11. Season for Shipping and Transplanting.** We begin digging strawberry plants October 15, **not earlier**, and other stock November 10, and continue almost uninterruptedly to dig and ship until March 10, November, December and February being the best months in which to transplant in the South.

**12. Trees and Plants by Mail or Parcel Post.** Packages or bales of trees not measuring over 72 inches in length and girth combined can be sent by Parcel Post up to 50 pounds if within 150 miles of Denison, and up to 20 pounds for any distance. The Zone rates apply. If any of our customers desire their orders sent by Parcel Post, we will send them that way, but remittance must be made to cover cost of postage as same has to be paid in advance.

**13. We Prepay Express or Parcel Post** on any order of \$5.00 or more to any point in Texas or adjoining states, provided remittance is made under the "PREPAID SCALE." On orders of \$5.00 or more remitted at F. O. B. Denison. SCALE, we will send Express Collect. See further explanation of this under "PRICES."

### PRICES.

**14. Prices are given** with each class or variety of stock throughout the catalog. As noted, there are two sets of prices: the "DENISON SCALE" and the "PREPAID SCALE."

**15. The "DENISON SCALE"** to be applied as follows:

- On all size orders to any point where the customer desires to pay his own freight or express.
- On all orders of less than \$5.00 to any point.
- On all size orders going to other states than those mentioned in paragraph 16.

**16. The "PREPAID SCALE"** to be applied as follows:

- On all orders of \$5.00 or more going to any railway station in the states of Texas, Oklahoma, Kansas, Arkansas, Missouri, Louisiana and points in New Mexico between Clovis, Roswell and Carlsbad and points east thereof. Under the "Prepaid Scale" we pay the express or freight.

**17. Customer's Option.** Customers living in the above mentioned states and making orders of 5.00 or more at a time have the choice of ordering from either scale of prices according as to whether he wishes to pay transportation or us. Customers living in other states than those mentioned, and all customers making orders of less than \$5.00 should remit according to the "DENISON SCALE."

**18. Cost of Packing** is considerable, but on all orders of \$2.00 or more we will do the packing free. On orders of less than \$2.00 add 25 cents for cost of material and time used in packing. We pack in moist moss, straw or shingle-tow, and thoroughly protect with outside packing.

**19. Prices as to Quantity.** As noted, prices are given for "each," "dozen" and "100." When 1 to 5 of a variety is ordered, remit according to the each price. When 6 to 39 of a variety is ordered, remit according to the "dozen" price. When 40 to 400 of a variety is ordered, remit according to the "thousand" price, which is 10 per cent discount from the "100" rate.

## Express Rates

During the year 1914 a new system of Express Rates for Interstate shipments have been put into effect by the Interstate Railway Commission, which on the whole are lower than formerly. One decided beneficial feature is that shipments are now billed through on one rate in case two or more express companies carry the shipment, and not a double charge as formerly. The Rates in Texas are fixed by the Railway Commission of Texas. Nursery Stock goes at the General Special Rate in Texas, and for Interstate shipments Nursery Stock takes Class 2 Rates. We are able to supply from this office the exact rate to any Express Office in the United States. Unless the shipment of stock be very large, we suggest the express as being more satisfactory and safer. When shipments are large we can box so they can go safely by freight. We find that charges on shipments of 300 pounds or less is as low by express as by freight, and on bales of 125 pounds or less the express is the lower. However in making your order please give explicit directions for shipment. When such are not given we will use our best judgment, but will not be responsible for any dissatisfaction.

## Care of Trees On Arrival

Be careful in unpacking to note everything, and immediately "heel in" in moist soil till planted, or plant at once. Never allow the roots to dry, or failure will most likely result. If the stock is received in a frozen condition, place the bales or boxes in a dark cellar or bury in earth till thawed out.

Before planting remove all broken and extra long roots with a sharp knife, cutting from below outward, not above downward. One-year-old peach or apple trees should be cut back to a naked stem  $1\frac{1}{2}$  to 2 feet high; leave no side branches. Two-year-old trees should have their branches cut back to their half length or more, the lower less than those above; cutting in shorter as you go upward, and leaving the leader the longest. Plant as deep as the trees stood in the nursery row, excepting dwarf pear and cherries, which should be planted sufficiently deep to cover the stock from two to three inches.

The ground should be thoroughly plowed and subsoiled at least fifteen inches deep. If to be set in land which cannot be plowed, dig holes not less than eighteen inches deep and three feet across. Then fill up with rich, mellow earth, but no fresh manure, to such a point that the tree set thereon will stand the same depth in soil, when the hole is filled, as it stood in the nursery row. Lean the tree to the south considerably and fill in among the roots carefully with mellow soil, and when completely covered an inch or two, press the soil firmly down with the foot, after which level up the hole with loose soil, which should not be tramped. If the soil is dry, pour in a bucketful or two of water before filling the hole, and when settled away, level up with loose soil. Keep the soil thoroughly pulverized about the tree, and free from weeds during the growing season. Do not water through the summer time by pouring water on top of the ground, but dig trenches around the tree and fill with water every evening until ground is thoroughly saturated below the roots; then no more watering will be needed for two weeks. Partial surface watering kills more trees than it saves. Water only in drouth, when trees show need of it.

For more detailed information on this subject and on future care of the trees, we respectfully refer you to American Fruit Culturist, or Bailey's Principles of Fruit Culture, found in the list of books.

**FOR INFORMATION ON SPRAYING.** Diseases of Trees and Plants, and all kindred subjects, write your State Agricultural Department, or Experimental Station, or Department of Agriculture, Washington, D. C. for bulletins on these subjects. They will be furnished to you free of charge and will give you the latest and best information. The National Government and most all the States maintain a department devoted to horticultural interests, and their information on spraying, diseases of trees and plants, etc., is the best to be had.

## Clubbing Rates

Where there are several in a neighborhood desiring trees and other nursery stock it would be to their advantage to club together and have some one of their number to make the entire order as a single order, thereby getting the advantage of one express charge instead of several, besides getting stock at a lower rate on account of increased quantity in one shipment. For example, say there were eight parties in a neighborhood who only wanted about five peach trees each. If each one made a separate order the cost would be 5 peach trees at 20 cents each, and express 35 cents; total to each one, \$1.35; hence the total cost to the eight would be \$10.80. But if all these eight parties went together and had one to make the entire order as one order, and order the 40 peach trees they then buy 40 at \$12 per 100, or \$4.80, plus express, say, of 70 cents, making the total of \$5.50. This, when prorated, would be about 70 cents to each, instead of \$1.35, as would be if each one ordered separate. Another plan would be for one of the party to collect from his neighbor \$1 for his 5 trees, and so for each one, and then make the order and remit us for 40 at \$12 per 100, thereby making the difference of \$3.20 for his trouble, and each neighbor would be paying no more than if he ordered alone. The plan is to combine the several individual orders in one aggregate, which will enable all to get the dozen or 100 rate according to quantity, whereas they would be only allowed the single or dozen rate if ordered separate.

Hill County, Texas, March 30, 1915.

I have been intending for several weeks to write you my expressing my appreciation of the way you filled my order for fruit trees and grape vines. Trees arrived in first class condition and gave every indication of having been packed and shipped properly. I will likely want quite a nice order from you this fall.

Thanking you again, I am,

Sincerely, W. G. ESCOTT.

## Horticultural Information

We receive many inquiries about Horticultural matters, some of which to properly answer would require several pages of letter writing and much time in searching the information with which to make answer. We are glad to give our customers all the information possible but the questions are so numerous we find it impossible to answer all in the little time that we can spare from looking after the proper filling of our customers' orders, as we give the careful propagation and the growing of stock for our customers the first consideration. To assist our customers as much as possible we have here listed, after careful examination, the following books upon horticultural matters. We will take pleasure in ordering any of these or other horticultural and agricultural books for our customers at the publishers' prices. We do not keep the books in stock here, but same will be mailed direct to you from the publishers. By so doing we are enabled to obtain these books at a less price to our customers than if we carried them in stock. Cash must accompany the order. No discounts.

Nearly every one of these books is profusely illustrated.

<b>American Apple Orchard.</b> Waugh, 226 pages.....	\$1.00
<b>American Grape Growing and Wine Making.</b> Prof. Geo. Husmann. 310 pages.....	1.50
<b>American Fruit Culturist.</b> J. J. Thomas. The standard work. 920 pages.....	2.50
<b>Bush Fruits.</b> Fred W. Card. Treating of Berries and Shrub-like Fruits. 537 pages....	1.50
<b>California Fruits and How to Grow Them.</b> Illustrated. 477 pages. Wickson.....	3.00
<b>Citrus Fruits and Their Culture.</b> H. H. Hume.....	2.50
<b>Elementary Principles of Agriculture.</b> Ferguson & Lewis. A superb book, both for the student and the practical farmer.....	1.00
<b>Evolution of Our Native Fruits.</b> L. H. Bailey. 472 pages. ....	2.00
<b>Field Notes on Apple Culture.</b> L. H. Bailey. 90 pages. ....	.75
<b>Fertilizers.</b> E. B. Voorhees. 335 pages.....	1.00
<b>Foundations of American Grape Culture.</b> T. V. Munson. The most complete of any work on grapes. Superbly illustrated.....	2.00
<b>Fruit Grower's Guide Book.</b> An excellent work by E. E. FAVOR.....	1.00
<b>Garden Making.</b> L. H. Bailey. Practical. Starts the beginner aright on how to raise fruits and flowers about one's home. 417 pages.....	.75
<b>How to Make a Fruit Garden.</b> S. W. Fletcher. Invaluable for amateurs. 283 pages. Nearly 200 photographs. ....	2.00
<b>How to Make a Flower Garden.</b> 370 pages. Over 200 photographs.....	1.60
<b>How to Make a Vegetable Garden.</b> Edith L. Fullerton. 250 pages.....	2.00
<b>Irrigation Farming.</b> Lute Wilcox. 312 pages.....	1.50
<b>Irrigation and Drainage.</b> F. H. King. 502 pages. ....	1.50
<b>Lawns and How to Make Them.</b> Leonard Barron. Finely illustrated.....	1.20
<b>Market Gardening and Farm Notes.</b> Landreth. ....	1.00
<b>Orchard and Fruit Garden.</b> E. P. Powell. A valuable work for the beginner and practical horticulturist. 322 pages.....	1.00
<b>Oemler's Gardening for the South.</b> Treating of vegetables and fruits.....	1.50
<b>Principles of Fruit Growing.</b> Bailey. The best work of the kind. 516 pages.....	1.50
<b>Practical Floriculture.</b> Peter Henderson.....	1.50
<b>Plums and Plum Culture.</b> F. A. Waugh. 371 pages. ....	1.50
<b>Principles of Plant Culture.</b> E. S. Goff. 285 pages. ....	1.00
<b>Plant Breeding.</b> L. H. Bailey. 203 pages.....	1.00
<b>Pruning Book.</b> L. H. Bailey. A monograph of the pruning and training of plants as applied to American conditions. 545 pages. ....	1.50
<b>Roses and How to Grow Them.</b> By many experts. Practical and illustrated.....	1.20
<b>Spraying of Plants.</b> E. G. Lodeman. Complete discussion of this most important subject. 399 pages. ....	1.00
<b>Small Fruit Culturist.</b> A. S. Fuller. All classes of small fruit.....	1.50
<b>Soils.</b> Their properties, improvement and management. C. W. Burkett. 303 pages. N.	1.25
<b>Strawberry Culturist.</b> A. S. Fuller. Excellent little work. ....	.25

**FOR INFORMATION ON SPRAYING, Diseases of Trees and Plants.** and all kindred subjects, write your State Agricultural Department, or Experiment Station, or Department of Agriculture, Washington, D. C. for bulletins on these subjects. They will be furnished to you free of charge and will give you the latest and best information. The National Government and most all the States maintain a department devoted to horticultural interests, and their information on spraying, diseases of trees and plants, etc., is the best to be had.

[Note—If your trees are infected with any insects or fungous diseases, send infected portion to your Experiment Station, your State Entomologist, or United States Entomologist, at Washington, D. C.]

### POT PLANTS, CUT FLOWERS, FLORAL DESIGNS.

We do not have for sale any Cut Flowers or Greenhouse Plants, but same can be supplied from a greenhouse adjoining the nursery. Write to C. E. Majors, florist, 1315 Mirick Ave., Denison, Texas, for information and particulars.

### ADDRESSES OF HOME IMPROVERS PAID FOR.

If you will send us with your order the names and postoffice addresses of six of your neighbors who own and are improving their homes, we will put in with your order, if as much as \$3 or over, articles from our list, of your own selection, to the amount of 25 cents. For 12 such addresses, when order is \$4 or more, articles to the amount of 50 cents. This order does not extend to more than twelve addresses from one customer. Be sure to put the list of names on a separate paper from that of your letter or order, as the list goes to a different department. Unless list of names is separate from order or letter, we cannot allow the extra stock.



Apples

Plant Apple Trees in the South 20 feet apart north and south by 30 feet apart east and west, requiring 73 trees per acre. Best corn or cotton sandy land is suitable.  
Read Bailey's Field Notes on Apple Culture, price 75 cents; or American Apple Orchard, \$1.00.

Prices. See full explanation under paragraphs 15 to 19, page 2.	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
2 to 3 feet.....	\$0.10	\$1.00	\$ 7.00	\$0.11	\$1.15	\$ 8.00
3 to 4 feet.....	.15	1.50	10.00	.18	1.85	12.00
4 to 5 feet.....	.20	2.00	14.00	.25	2.65	18.00

The Hyslop and Delicious can be supplied in one year trees only, 2 to 3 and 3 to 4 ft.

IN ORDER OF RIPENING

JUNE IN TEXAS

**Early Harvest.** Medium, bright straw color, tender, sub-acid; fine desert and cooking apple. Must be handled very carefully for market.

**Red June.** Slow, prolific; red, small; good, tart; market, table. One of the most valuable for heavy planting in the South.

**Fanny.** Vigorous; productive; red, large; excellent; market, table.

JULY

**San Jacinto.** Like a very large Red June apple, of which it appears to be seedling, coming in just as the Red June goes out. Tree vigorous and prolific; very productive. A variety of the highest merit both for market and table. Fruit hangs to the tree remarkably well and a fine keeper for an early apple.

**American Summer.** Medium to large; roundish conical; dull red stripes on a pale yellowish ground; rich, juicy and one of the best.

AUGUST

**Bledsoe.** Originated and grown extensively for many years by Judge Bledsoe, formerly of Sherman, and orchardist of note, has proved to be an apple of great merit for the Southwest, and later, over a wide range, especially so in the high, western plateau. It is large, roundish oval, sometimes angular, greenish striped and splashed with red; flesh white, sub-acid, good. Tree very vigorous and prolific. August and later.

**Jonathan.** Of American origin. Medium, if thinned on the tree grows larger. Roundish conical, rich bright red on light yellow ground, few minute white dots; flesh yellowish white, tender, juicy, sprightly, sub-acid, a standard of excellence in market apples. Tree has a dropping pendant habit; very productive, and requires rich soil. Universally popular. Should be gathered in August and stored to obtain best results.

**Texas Red.** One of the most highly esteemed apples in East Texas; large, solid red; fine; excellent keeper.

**Rome Beauty.** Large, roundish, mostly covered with bright red on pale yellow ground. Tender, of good quality.

**Doyle.** Originated in East Texas where it is highly praised. Large, striped, with high color.

OCTOBER AND LATER

**Bradford.** (Kentucky Streak.) Strong, abundant; striped, large; very good, market.

**Ben Davis.** Tree healthy, vigorous, an abundant bearer; fruit large, handsome, striped; flesh whitish, tender, juicy, sub-acid, only fair in quality. Popular on account of its good bearing quality.

**Stayman's.** (Stayman's Winesap.) Medium to large; oblate, conical; greenish yellow, mostly covered and indistinctly splashed and mixed with dull dark red, with numerous medium gray dots; flesh yellow, firm, tender,

juicy, mildly sub-acid, aromatic; quality best. Another seedling of Winesap originated in Kansas; is much larger, more beautiful in color and better in quality and equal or better keeper.

**Delicious.** Winter. Of peculiar and distinctive shape; brilliant dark red, shading off to golden yellow at the blossom end; flesh fine-grained, juicy, crisp and melting; flavor sweet, with a slight acid taste. Tree vigorous, thrifty and a good, dependable cropper.

**Spitzenburg.** Winter. In certain sections of the East succeeds splendidly and is standard in the West. Grows very finely when well fed and cared for. Medium-sized, round; dark red almost all over; firm, crisp, sub-acid, slightly aromatic. One of the richest flavored of all Apples, and very handsome. Spitzenburg can not be beaten when grown under conditions it prefers. Be sure you are in the right location.

**Winesap.** Medium; roundish conical form; mostly covered with red, on yellow ground; flesh fine, crisp, with a rich, high flavor. One of the best for market, dessert, or for general winter use.

**Gano.** Similar to Ben Davis, but deeper in color, and better in quality. Tree very hardy and vigorous. A rapid grower. An early, annual and prolific bearer. A valuable late winter apple.

**Arkansas Black.** Vigorous, abundant; dark red, medium; excellent market; seedling of Winesap.

**Kinnaird.** Strong, spreading tree, prolific; red, large; a superb Southern winter apple; the best of all Winesap seedlings. Flesh pale yellow, crisp, fine grained; of fine quality. Tree longest lived of all varieties tested with us; originated in Tennessee.

**York Imperial.** Fruit large, nearly round; whitish, shaded with crimson, thinly sprinkled with light gray dots; flesh yellowish, firm, crisp, juicy, pleasant, mildly sub-acid. Very good. Mid-winter.

**Arkansas (Mammoth Black Twig; Paragon).** Size large, roundish, slightly flattened; color a dark mottled red; flesh yellow, fine-grained, with a mild, pleasant; sub-acid flavor. Tree a strong grower and abundant bearer. Large fruit and better tree than Winesap, of which it is a seedling.

Crab Apples

Prices: Same as Apple

**Hyslop.** Almost as large as Early Strawberry Apple; deep crimson; very popular on account of its large size, beauty and hardness. Keeps well into the winter.

**Whitney.** Large, averaging 1½ to 2 inches in diameter, skin smooth and glossy green, striped, splashed with carmine; flesh firm, juicy and rich. Said to be a great bearer and very hardy. Tree a vigorous, handsome grower.

## Pears

Pears do well on a variety of soils—clay loam, sandy and red soil. The soil must not be wet, should be drained, if not naturally drained. The knife is the best remedy for blight. Keep it cut off as fast as it appears. Cut back to 3 or 4 inches below where the twig or limb has blighted. Keep this up from time to time as the blight appears, and you can keep it down. We have found here and there that there is less blight where the trees are not cultivated after the second year. Plant 18 feet apart each way, requiring 135 trees per acre.

Prices. See full information on page 2, paragraphs 15 to 19.	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
Seckel, Bartlett, Brown Beurre, Anjou						
3 to 4 feet.....	\$0.20	2.25	\$16.50	\$0.22	\$2.60	\$17.50
4 to 5 feet.....	.25	2.50	18.00	.30	2.90	21.00
Garber, Kieffer						
2 to 3 feet.....	.10	1.10	9.00	.11	1.40	10.00
3 to 4 feet.....	.15	1.50	10.00	.17	1.85	12.00
4 to 5 feet.....	.20	2.00	13.00	.25	2.50	16.00

**Seckel.** Small, short, pear-form; yellowish brown, with russet-red cheek; rich, juicy and melting. August.

**Bartlett.** Large, pear-shaped; yellow, rich, juicy and very fine. The most popular variety of its season. Early in August.

**Brown Beurre.** Large, brown; firm; best quality, hardy.

**Beurre d'Anjou.** Rather large; obtuse form; greenish yellow, dull red cheek; rich, melting, and buttery.

**Garber.** Equally as hardy as the Le Conte or Kieffer, of same class of pears. The growth and appearance is very much like Kieffer; ripens one month sooner and of better quality.

**Kieffer.** Originated near Philadelphia. Supposed to be a seedling of Chinese Sand Pear crossed with the Bartlett. Size large, very handsome; skin yellow, with a bright vermilion cheek; very juicy, with a musky aroma; quality good when ripened to perfection. A very young and prolific bearer. As near blight-proof as Pear can be called.

Hale County, Texas, March 20, 1915.

The arborvitae and roses came in perfect order. I have the book "Foundations of American Grape Culture," and think it a great book.

Very Respectfully, F. F. BARNES.



Seckel

## Apricots

Plant 18 feet apart each way, requiring 135 trees per acre. Succeed best in limestone soil; bloom very early in spring. Should be treated like peaches. Very successful in most parts of the West on high ground.

Prices. See full explanation under paragraphs 15 to 19, page 2.	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
2 to 3 feet.....	\$0.15	\$1.50	\$10.00	\$0.17	\$1.70	11.00
3 to 4 feet.....	.20	2.00	15.00	.23	2.35	17.00
4 to 5 feet.....	.25	2.50	18.00	.30	3.00	22.00

**Nellie.** One of the several varieties found in Mexico by Gilbert Onderdonk and introduced by the Department of Agriculture. Mr. Reisen, of San Saba county, fruited several of these Mexican introductions, and the Nellie appeared to be the best of the lot. We have not fruited it here.

**Moorpark.** Large, yellowish green with brownish red on sunny side, marked with numerous dark specks, flesh bright orange, parts readily from the seed; grown largely for commercial purposes, especially for canning and drying. Tree vigorous and prolific. June.

**Peach Apricot.** We are at present unable to give definite description, as we have not yet fruited this variety, but has fruited in the State, and said to be similar to Early Golden.

**Cluster.** This valuable variety is claimed to have never missed bearing any season since its introduction. Originated in Texas, from seed of Russian apricot.

**Royal.** European, large, slightly oval, dull yellow with red next the sun, flesh orange yellow with rich, vinous flavor. An important commercial variety.

Jujube

This is a fruit introduced from China. There are many varieties, the same as our plums, some indifferent and some very good. The tree is handsome, having beautiful glossy green leaves, and a fruit at every leaf, making a beautiful ornamental tree. The fruit is shape of an olive, has dry pulp of good flavor, but very mild in acid, rather a nutty flavor. We have succeeded in growing some seedlings from one of the best varieties. See photograph on back cover.

One-year seedling, 4 to 6 inches, 25 cents each.

Plums

Named in the order of ripening.

Plant 18 feet apart each way, requiring 135 trees per acre. Succeed on thinner land than peach, with more clay, and thrive where the peach will. All succeed well nearly everywhere.

Read Plums and Plum Culture (Waugh), \$1.50

Prices. See paragraphs 15 to 19, page 2.

	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
2 to 3 feet.....	\$0.15	\$1.50	\$10.00	\$0.16	\$1.75	\$11.00
3 to 4 feet.....	.20	2.00	13.00	.22	2.40	14.50
4 to 5 feet.....	.25	2.50	18.00	.30	3.00	21.00

**Funk Early.** Abundance crossed with an early Chickasaw variety. Tree vigorous and healthy, productive, free from rot and curculio. Fruit of good medium size, dark bright red, quality very good. Earliest of all to ripen. Well tested and valuable.

**May Beauty.** Same parentage as Funk Early. Ripening soon after, of similar description but of larger size. Well tested.

**Red June.** Early, ripens with early peaches; medium to large; good bearer; red all over; fruit pointed and flesh yellow, and very fine in quality.

**Milton.** A cross of Wild Goose with some Americana variety. Bette; in quality than Wild Goose, nearly as large. Bright red with small white dots, very handsome. Late bloomer, but ripens early, just before Abundance. Persistent to tree after ripening. Resists rot and curculio well.

**Abundance.** Medium if allowed to mature as the fruit sets on tree, but large when fruit is properly thinned. As this variety is in-



Burbank

clined to overbear, it is best that the fruit be thinned by taking at least one-half to two-thirds the fruit off when size of small marbles, the remaining fruit will be of extra size to more than make the same yield. Roundish, skin yellow, washed with purple with a bloom; flesh yellow, juicy, sub-acid with apricot flavor, quality superb.

**Roy.** Same parentage as Funk Early. Similar in description to May Beauty, of which it is a sister, but ripens after it. Well tested.

**Normand.** Large, heart-shaped; yellow flesh; yellowish green skin. Of finest quality. Much prized by ladies for preserving.

**Gonzales.** Fruit very large, meaty, of brilliant red; finest of flavor; good shipper and keeper. Tree very strong and immensely productive. Very valuable.

**America.** A hybrid of Robinson with Abundance. Tree very thrifty, symmetrical, spreading; fruit medium to large, bright golden ground with pink cheek, dotted white; flesh firm, stone medium to large, cling. Considered one of Burbank's best productions. Very valuable.

**Wickson.** One of Burbank's most remarkable hybrids; between the Kelsey and Simon plums. Very large, heart shaped; dark crimson, firm, of finest quality. Blooms very early, and will succeed in localities having late springs. Nothing finer in appearance or quality is known among plums.

**Burbank.** Large; clear cherry red; flesh deep yellow; very sweet and agreeable flavor. Very prolific.

**Satsuma.** Large, heart-shaped, with skin and flesh blood red to the seed. Much used for pickling.

**Miner.** Vigorous, prolific, healthy, old variety. Above medium size; good quality; free from rot and curculio. Very sure cropper.

**Minco.** Produced by us. Seeding of Miner pollinated by Wayland. Tree very vigorous, healthy and handsome. Fruit large, bright red, fine quality, freestone. Very late.

Collin County, Texas, March 14, 1915.

The trees ordered of you have been received and are very satisfactory. You will please put me on your list for a catalog next winter, and I will give you quite a bill as I have in mind setting out an orchard.

Truly yours, SAM E. BATEMAN.



## Cherries

Plant 18 feet apart each way, requiring 135 trees per acre. Require very best drouth-resisting soil. They do better on limestone or gravelly soil than sandy soils. We grow only varieties of the Duke and Morello class (Sour Cherries), as they are the only classes that will succeed in this part of the South. The Sweet Cherries (Hearts and Bigarreaus) are not successful here.

Prices. See paragraphs 15 to 19, page 2.	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
2 to 3 feet.....	\$0.12	\$1.25	\$10.00	\$0.14	\$1.50	\$12.00
3 to 4 feet.....	.15	1.60	12.00	.18	2.00	15.00
4 to 5 feet.....	.20	2.25	17.50	.25	2.75	22.00

**New Century.** Thought to be a combination of the Morello and Duke types; originated in Grayson county, Texas, where the original has fruited very successfully for a number of years. Fruit medium to large, light red, of good quality. Tree is of the Duke type, strong, upright, foliage rather broad, and free from the mildew.

**Dyehouse.** About a week earlier than Early Richmond. Large, good quality, small pit. Light red.

**Early Richmond** (Morello or Amarelle). Medium, flattened, light pink. Tree vigorous, spreading; early. May.

**English Morello.** Medium, roundish, dark red, flesh and juice dark, acid. Tree dwarfish and productive. Ten days later than Early Richmond.

**Baldwin.** Originated in Kansas. Fruit large, round, dark but transparent red. Slightly sub-acid, but rich.

## Mulberries

Plant 20 to 25 feet apart, requiring 109 trees per acre. Flourish in any soil or situation.

Prices. See paragraphs 17 and 18, inside front cover.	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
2 to 3 feet.....	\$0.10	\$1.00	\$ 8.00	\$0.12	\$1.25	\$ 9.00
3 to 4 feet.....	.15	1.50	12.00	.17	1.75	13.00
4 to 5 feet.....	.20	2.00	15.00	.25	2.50	17.00
5 to 6 feet.....	.25	2.50	.....	.30	3.50	.....
6 to 7 feet.....	.35	3.50	.....	.45	4.50	.....

**Munson.** One of the largest, most prolific and best mulberries of the Russian class. Originated by us, selected from among thousands of varieties grown from seed. The branches in fruit look like ropes of big berries. Earlier than Hicks.

**Hicks Everbearing.** Profuse bearer of fruit for three months; fine grower for shade; the best of all trees for the fowl yard, as the fowls greedily eat the berries. Later than Munson.

## Quinces

Plant 10 to 12 feet apart each way. Quinces need very rich, deep, well-drained soil; they are better for careful culture.

	Each	Per 12	Per 100
Packed and on cars at Denison.....	\$0.15	\$1.50	\$10.00
Packed and prepaid to your depot (in \$5 orders or more).....	.20	1.75	11.50

**Meech.** Very fine and prolific; none better in growth or quality of fruit.

## Figs

Hardy in South Texas. In North Texas unprotected tops will sometimes winter kill, but when frozen tops are cut off, new shoots will come and bear fruit late in summer of same season. Like rich garden soil. Plant 10 feet apart.

Prices. See full explanation under paragraphs 15 to 19, page 2.	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
One year.....	\$0.15	\$1.50	\$12.00	\$0.20	\$2.00	\$13.00
Two year.....	.25	2.50	20.00	.30	3.00	23.00

**Magnolia** (Dalmatian). Large, light yellow with slightly brown cheek. Of excellent quality. Unusually productive. Fine for preserves.

**Black California.** Large, dark purple, very attractive.

## Seedling Pecan Trees

These were grown from nuts of fair size and quality. They are recommended for shade trees where the fine large nut or paper shell quality is not so much desired.

Prices. See full explanation under paragraphs 15 to 19, page 2.	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
1 year, 6 to 10 inch.....	\$0.10	\$0.90	\$ 6.00	\$0.11	\$1.00	\$ 6.50
2 and 3 year, 1 to 2 feet.....	.15	1.50	12.00	.18	1.80	13.50
2 and 3 year, 2 to 3 feet.....	.20	2.00	16.00	.25	2.50	20.00
3 and 4 year, 3 to 4 feet.....	.35	3.50	30.00	.45	4.50	40.00
3 and 4 year, 4 to 6 feet.....	.45	4.50	40.00	.70	7.00	60.00



Pecan Trees—Grafted Varieties

GULF COAST ORIGINATIONS

**Prices.** See full explanation under paragraphs 15 to 19, page 2.

	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
Schley, Stuart, Van Deman						
1 to 2 feet.....	\$0.50	\$ 5.00	\$40.00	\$0.55	\$ 5.50	\$43.00
2 to 3 feet.....	.75	7.50	60.00	.85	8.50	68.00
3 to 4 feet.....	1.00	10.00	80.00	1.20	12.00	94.00

**Stuart.** Nuts large or very large, 1½ to 2 inches long, oblong with brownish shell, strongly marked with dark color. Shell of medium thickness and of very good cracking quality. Kernel full, plump, bright colored. In quality one of the best, the flavor being rich and sweet. A heavy bearer. Tree a strong grower, reaching an immense size, with large foliage.

**Van Deman.** Large to very large, from 1½ to 2½ inches long, rather slender, pointed at both ends. Color reddish brown with purplish markings. Shell of medium thickness; cracking quality excellent. Kernel full

and plump, bright brownish yellow; flavor sweet and good. Tree is vigorous, healthy, with large bright foliage. Altogether one of the most desirable varieties.

**Schley.** Size medium to large. 1½ to 1¾ inches long; oblong, somewhat flattened; light reddish brown with a few small markings of purplish brown; shell thin, separating easily from the kernel; kernel full, plump, bright yellowish brown in color; flavor rich, nutty, in quality one of the best. Tree a good grower and on the whole a very excellent variety.

TEXAS ORIGINATIONS

**Prices.** See full explanation on page 2, paragraph: 15 to 19.

	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.		Each	Doz.	
Texas Prolific, San Saba.....	\$1.50	\$17.50	.....	\$1.75	\$20.00	.....
Halbert						
1 to 2 feet.....	.65	6.50	.....	.75	7.50	.....
Hollis Seedlings						
2 year, 2 foot.....	.35	3.50	.....	.40	4.00	.....

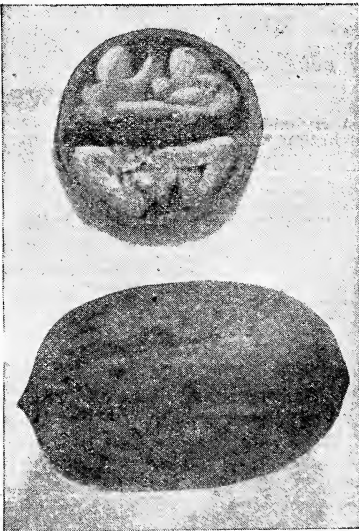
**San Saba Improved.** A seedling of San Saba. This tree came in as a surprise, for we had about given up all hope of getting a better nut than the original; but, after discarding thousands, our patience has been rewarded. The tree bears two weeks earlier, and commences the middle of September. The nuts, a third larger than the original variety, are much brighter in color, and the tree is a stronger grower. The nuts weigh 60 to the pound. Two-year-old trees, \$1.50 each.

**Texas Prolific.** A seedling of San Saba; season of ripening medium. Trees of this variety are so precocious as to begin bearing the second year from the bud. The nuts are large, shapely, and of a beautiful color; the kind that is attractive. They fill up the barrel fast, and stand on their own merits. Texas Prolific is the most difficult of all varieties to propagate, and this is why we doubt the ability of other nurseries to cut the price of the genuine stock. Trees at \$1.50 each.

The Texas Prolific and San Saba are two of the best productions of E. E. Risien of San Saba County, and for our higher altitudes we recommend them in preference to the "Coast" varieties.

**Halbert.** A select variety found in Coleman county. A successful variety for the higher lands of Texas. Above medium in size, blunt end, and of fine quality.

**Hollis or Jumbo**—Discovered thirty years ago in Colorado River bottom, near San Saba, Texas. The tree is nearly 100 years old, 100 feet high, nearly 3½ feet in diameter. Has averaged 300 pounds of nuts per year for several years selling for 50 cents per pound. These nuts have taken first prize at expositions at New Orleans, Paris, France, Chicago and St. Louis, besides many local fairs. Nuts medium large, oblong-blunt, dull yellowish brown, shell medium, full-meated, with fine separation. Flavor excellent.



Stuart

Marion County, Ind., March 15, 1915.

The stock came in on the 12th. You sent out the best stock that I ever received. The packing was fine and came in good shape, could not have been better.

Respecefully yours, E. A. DITTRICH.

## Persimmons

### JAPANESE VARIETIES.

These were introduced from Japan about seventy years ago. They are the royal fruit of Japan, their best native pomological product. Leaves are broad and burnished, the trees vary from shrubby growth of eight to ten feet high, to a much larger size in different variety. Usually very prolific, often bearing at three years of age.

**Prices.** See paragraphs 15 to 19, page 2.

	Packed. F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
1 to 2 feet, grafted.....	\$0.25	\$2.50	\$17.50	\$0.27	\$2.75	\$19.00
2 to 3 feet, grafted.....	.35	3.50	25.00	.40	4.00	27.00
3 to 4 feet, grafted.....	.50	5.00	40.00	.60	6.00	45.00
1 year seedlings, 4 to 10 inch.....	.10	.95	7.00	.11	1.05	7.50

**Costata.** Medium size, conical, pointed, somewhat four-sided; diameter  $2\frac{1}{2}$  inches longitudinally and  $2\frac{1}{2}$  inches transversely; skin salmon-yellow; flesh light yellow, dark flesh, and seeds occurring seldom; astringent until ripe; then very fine; one of the latest to ripen; a good keeper. Tree distinct; a rapid, upright grower, foliage luxuriant.

**Hachiya.** Large to very large, varying short point; very showy; diameter  $3\frac{1}{2}$  inches longitudinally and  $3\frac{1}{2}$  inches transversely; skin dark bright red, with occasional dark spots or blotches and rings at the apex; flesh deep yellow, sometimes having occasional dark streaks, with seed. Astringent until ripe, then very fine. The largest and handsomest of all. Tree vigorous and shapely.

**Okame.** Large, roundish oblate, with well-defined quarter marks, point not depressed; diameter  $2\frac{3}{4}$  inches longitudinally and  $3\frac{1}{4}$

inches transversely; skin orange-yellow, changing to brilliant carmine, with delicate bloom and waxy, translucent appearance; light clear flesh when ripe, with light brown center around the seeds, of which it has several; loses its astringency as soon as it begins to ripen; quality fine. Tree vigorous and a good bearer.

**Hyakume.** Large to very large, varying from roundish oblong to roundish oblate, but always somewhat flattened at both ends; generally slightly depressed at the point opposite the stem; diameter  $2\frac{3}{4}$  inches longitudinally and  $3\frac{1}{4}$  inches transversely; skin light buffish yellow, nearly always marked with rings and veins at the apex; flesh dark brown, sweet, crisp and meaty; not astringent; good while still hard. The tree is of good growth and a free bearer.

**Dai-Dai-Maru.** Very large. Tomato-shaped. Pale yellow.

### CHINESE VARIETIES

**Ta-mo-pan.** (Meaning in Chinese "large grindstone.") This remarkable persimmon was obtained by the Department of Agriculture collector of plants in Northern China, in the Ming Tombs Valley. It is said to endure more cold than any of the Japanese varieties. With us for three years, it has been perfectly hardy. It is said to have the largest fruit of any of the known varieties, reaching as much as five inches in diameter, much flattened and with a peculiar

suture extending around it equatorially. Flesh bright orange, free from astringency at all times; firm and of high quality. It promises to be hardy as far North as Kansas. It is exceedingly scarce in this country, and ours are the first trees offered for sale. We have only a few grafted on native persimmon roots, very fine trees.

Trees, 5 ft. and up.....\$1.50 each  
(Have none smaller in stock this season.)

## Kawakami Persimmon

A hybrid of one of the best Japanese with the Josephine. Fruit 2 inches in diameter. Tree hardy as far North as Illinois. We have both grafted and seedling trees. The difference is explained under prices of the Josephine Persimmon, which see.

**Prices.** See full explanation on page 2.

	F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.		Each	Doz.	
Grafted trees with cions from original tree, 1 to 2 ft..	\$0.35	\$3.50	.....	\$0.40	\$4.00	.....
Grafted trees with cions from original tree, 2 to 3 ft..	.60	5.00	.....	.65	5.75	.....
Grafted trees with cions from original tree, 3 to 4 ft..	1.00	10.00	.....	1.20	12.00	.....
Seedling trees, 1 year, 4 to 10 inch.....	.10	1.00	.....	.11	1.15	.....

## Josephine (American Honey) Persimmon

We have a tree of the native Persimmon found wild in Missouri by Samuel Miller, and by him named Josephine, bearing profusely of large, clear honey-colored fruit of finest quality, preferred by all to even the finest Japanese kinds. The tree was moved into our grounds among the Japan varieties, and continues to fruit abundantly. It has few small seeds in comparison with most varieties. All things considered, it is the finest Persimmon known to us.

**Prices.** See full explanation on page 2.

	F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.		Each	Doz.	
Grafted trees with cions from original tree, 1 to 2 ft..	\$0.35	\$3.50	.....	\$0.38	\$3.75	.....
Grafted trees with cions from original tree, 2 to 3 ft..	.50	5.00	.....	.55	5.50	.....
Seedling trees grown from seed of original tree, 1 yr..	.10	.90	.....	.11	1.00	.....
Seedling trees grown from seed of original tree, 2 yr..	.15	1.40	.....	.18	1.60	.....

The Josephine, to bear well, needs one or two of its seedlings planted near it. Grafted trees will bear the identical fruit as the original. Seedling trees will vary, but most of them will be similar; a few may be hybrids, as the original tree stands in orchard with Kawakami and Japanese varieties. About one-half of the seedling American Persimmons bear fruit, the others are male, the seedling trees.



Seedling Native Persimmons

We have grown some one year seedlings of the Native Persimmon, of fair quality. These we offer one year 4 to 10 inch trees at 5c each, 50c per dozen; \$4 per 100.

Peaches

**Directions for Cultivating.**—A sandy loam is best suited to the Peach, but it will adapt itself to almost any soil, provided it is well drained. Plant one-year-old trees 18x18 feet; cut the tree back to 18 to 24 inches, as it is always best to have a low-headed tree. In the spring, after the growth has started, remove all but three branches and let these be distributed so that the tree will be well balanced. For the first two years fertilize with well-decomposed barnyard manure, or a mixture of one part of cotton seed or bone meal to two parts of acid phosphate. Apply 1½ to 2 pounds to each tree. After the third year, avoid nitrogenous fertilizers and use a fertilizer containing a good percentage of bone phosphate and potash and a small percentage of nitrogen. Prune every year by cutting off one-third of the previous year's growth. The head of the tree should be broad and open, so as to allow free circulation of light and air.

**Borers.** Go through your orchard in March and where you find gum around the surface, clean away the dirt and, with a knife or some sharp-pointed instrument, follow up the borers and remove them; then throw around the tree a small quantity of lime and ashes. This plan, if rigidly enforced, will keep borers down, give you better fruit, and greatly extend the life of the trees.

**Thinning.** When a tree sets an overload, it pays to thin out the fruit, even if two-thirds of the crop has to be taken off. It relieves the tree, and the remaining fruit will grow to be large, fine flavored, and handsome, whereas if the tree is left overloaded, the fruit will be small, inferior, of poor flavor. The thinning should be done just when the young fruit is about the size of marbles, and thinned out so that the peaches will be not less than 3 to 4 inches apart on the tree. The extra price for the thinned fruit will more than pay for the fruit destroyed.

**Prices.** See explanation on page 2, paragraphs 15 to 19.

The prices here given apply to all varieties except Frank, Early Wheeler, Munson Free, Munson Cling, Lady Lindsey, and Grimes, which varieties are priced in connection with their descriptions.

	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Each	Doz.	100	Each	Doz.	100
June Bud, 1 to 2 feet.....	\$0.10	\$1.00	\$ 7.00	\$0.11	\$1.20	\$ 8.00
June Bud, 2 to 4 feet.....	.15	1.40	9.00	.18	1.75	10.50
One Year, 3 to 4 feet.....	.15	1.60	10.00	.20	2.00	12.00
One Year, 4 to 5 feet.....	.20	2.00	12.00	.25	2.50	15.00
Two Year, 5 to 6 feet.....	.20	2.00	12.00	.25	2.50	15.00

In **One Year**, we can only supply the following varieties: Bell of Georgia, Carman, Dewey, Elberta, Family Favorite, General Lee, Henrietta, Gold Dust, Mamie Ross, Mathew Beauty, Ringgold, Salway.

In the **Two Year** (which are the One Year trees of last season, left over and transplanted and grown over summer), we have the following varieties: Arp Beauty, Barnes, Bequett Free, Bonanza, Blanchard, Bequett Cling, Belle of Georgia, Ben Munson, Columbia, Carman, Chinese Cling, Crawford Late, Dewey, Dr. Burton, Elberta, Early Wheeler, Family Favorite, Gold Dust, Henrietta, Hynes Surprise, General Lee, Lady Lindsey, Munson, Free, Munson Cling, Mathew Beauty, Mamie Ross, Mayflower, Raisin Cling, Ringgold, Sylphide, Strout, Salway, Superb, Success, Slappy, Tarbell, Texas King, Victor, Yellow Swan.

In **June Bud**, we can only supply the following varieties: Arp Beauty, Bequett Cling, Bequett Free, Carman, Dr. Burton, Elberta, Family Favorite, Grimes, Gold Dust, General Lee, Henrietta, Lady Lindsey, Mamie Ross, Munson Free, Munson Cling, Raisin Cling, Ringgold, Salway, Superb, Texas King, Victor, Early Wheeler, Frank. (See special page for Frank.)

PERIOD I—MAY 20 to JUNE 5

**Mayflower.** (North Carolina.) Red all over; large, nearly free. Ripens 10 days ahead of Victor.

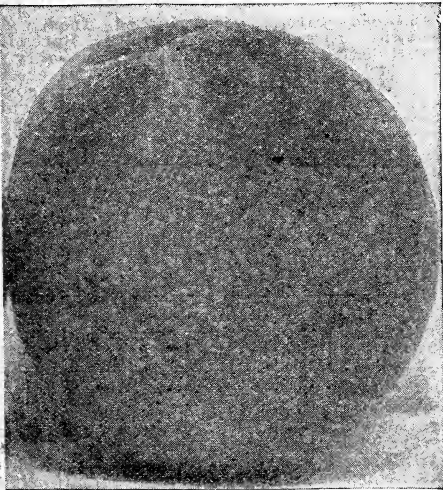
**Victor.** (N. T. Pirtle, Smith Co., Tex.) Productive. White with attractive blush cheek. Ripens throughout, which is not usual with extra early varieties, such as Alexander. Semi-cling, seed small.

**Early Wheeler.** (E. W. Kirkpatrick, Col-lin Co., Tex.) Prolific. White blush cheek, flesh white, extra firm, with true clingstone flavor. The best shipper among early varieties. Cling, 50c each; \$5 doz.

**Arp Beauty.** Productive. Apex flat. Skin yellow with bright crimson cheeks. Flesh yellow, free when fully ripe and firm. Quality the best of its season. Seed medium. Al-most identical in every particular with Yellow Swan.

**Strout.** (Vinita, Okla.) Medium size. A true free stone, with firm flesh, white streaked with red, often of pronounced blood color. Sure bearer and free from worms.

N. Hampton County, Pa., March 7, 1915.  
The stock you sent me was entirely satis-factory in every way as everything in the past has been when purchased from your firm. Yours truly, HENRY A. ROEHNER.



Elberta

## PEACHES—Continued

## PERIOD II—JUNE 1 to JUNE 10

**Dewey.** (J. D. Husted, Ga.) Productive. Skin orange yellow, nearly covered with dark crimson, more fuzzy than Alexander and resists rot better. Flesh yellow, moderately firm, free when fully ripe. Better in quality than any ripening earlier. Seed small.

**Hynes Surprise.** (E. F. Hynes, Mo.) Very prolific, apex small, pointed, without tit. Skin creamy white, little fuzzy, covered with dots and mottlings of pinkish crimson. Flesh white, free when well ripened. In quality equal to Dewey. Little attacked by rot. Seed small.

**Mamie Ross.** (John Ross, Dallas Co., Tex.) Sure, prolific. Skin rather fuzzy, creamy white with red cheek. Flesh white, rather soft, of fair quality, semi-cling. Seed medium. Has proven a profitable market peach.

**Texas King.** From East Texas. A peach of Mamie Ross type of better quality. The hardest in bud of any variety recorded, making it a very sure bearer. Fully as large and well colored as Carman. A favorite in New Mexico.

**Dr. Burton.** (Dr. E. L. Burton, Grayson Co., Tex.) Very vigorous and prolific. Small tit with sharp apex. Skin rather fuzzy, clear light creamy, mostly covered with pinkish red in dots, pencilings and blushes; brighter and more attractive than Mamie Ross. Flesh white, streaked with pink, much firmer and better in quality than Mamie Ross, in fact, the best ripening so early. Seed medium. 25c each. Any size.

## PERIOD III—JUNE 10 to JUNE 20

**Carman.** (J. W. Stubenrauch, Limestone Co., Tex.) Very vigorous, sure and prolific. Skin creamy, covered with stripes and splashes of crimson, rather fuzzy. Flesh of better quality than Mamie Ross. The best peach of its season. Nearly free. Seed medium. A very valuable commercial variety.

**Grimes.** White cling, skin white, beautifully tinged with red. White flesh with very excellent flavor. Ripe June 20th to 25th. Resembles Mamie Ross in shape and appearance, from which it is supposed to be descended (second generation). A good shipper. Originated in Grimes County, Texas, by Theo. H. Graves of Anderson, Texas. Price 50c each. Any size.

**Slappy.** (S. H. Rumph, Ga.) Prolific. Tit large, suture distinct, sides uneven. Skin quite fuzzy, rich lemon yellow, more than half covered with crimson. A bright showy peach. Flesh yellow with little red at stone, firm as Elberta, of better quality, perfectly free. Seed medium. The finest commercial peach, earlier than Elberta.

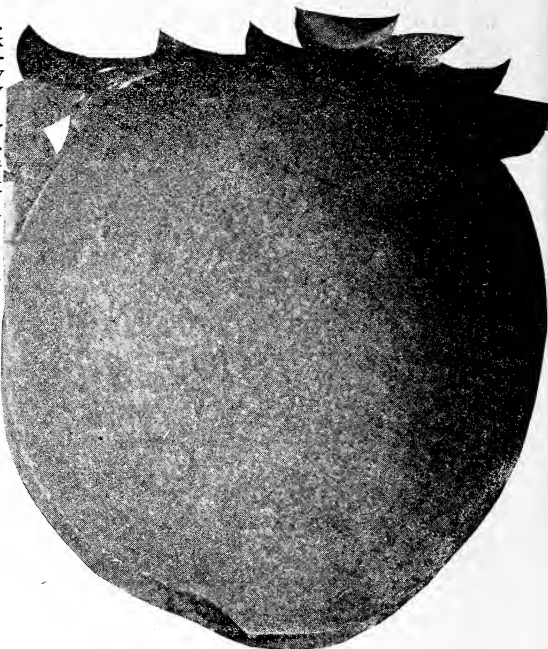
## PERIOD IV—JUNE 20 to JULY 1

**Family Favorite.** (W. H. Locke, Fannin Co., Tex.) From Chinese Cling crossed with some other good peach. Productive. Skin quite fuzzy, clear creamy white with rich pink blush on one side. Flesh white, tint of red at stone, free, excellent quality. Seed medium. Introduced by us in 1880, and has become a valuable standard.

**General Lee.** (P. J. Berckmans, Ga.) Sure and prolific. Tit broad and short. Skin creamy, one-half next to stem covered with mottled dull red, little fuzzy, much resembling Chinese Cling. Flesh white, red at stone, cling, quality excellent; firmer and better than Chinese Cling. Seed rather large.

## PERIOD V—JULY 1 to 15

**Elberta.** (S. H. Rumph, Ga.) Cross of Chinese Cling with Crawford Early. Sure and prolific. Nearly globose when fully developed, the largest specimens measuring 3x3, having little or no tit, suture shallow, sides



Munson Cling

nearly equal. Skin little fuzzy, orange yellow, more or less covered with crimson, according to soil and exposure. Flesh firm, of fair to good quality, sometimes a little bitterish. Freestone. Seed large. The leading commercial variety.

**Munson Cling.** (T. V. Munson, Tex.) From seed of Elberta. Equally prolific with Elberta. Tit broad, short, suture distinct, sides nearly equal. Skin fuzzy orange yellow, half covered with bright crimson mottling. Flesh yellow, firm as Elberta, of better quality, juicy. The showiest cling of its season, and the best. Seed large. Special price 25c each.

**Chinese Cling.** (Originated from seed brought from Shanghai, China.) Spreading habit, healthy, not very prolific. Probably the largest peach in cultivation. Skin creamy with short fuzz, mottlings of dull red covering one-third to one-half of surface next stem. Flesh white with little red at seed, tender, very juicy, sprightly sub-acid. It is the parent of more fine commercial varieties than any other peach in cultivation, and yet not a valuable commercial variety itself.

**Superb.** (T. V. Munson, Tex.) From seed of Early Rivers crossed with Mountain Rose. Vigorous and prolific, one of the most resistant against late frosts. Tit very small or wanting. Skin creamy white, one-third to one-half covered with bright crimson. Flesh white with very little red at seed, firm, of best quality, free stone. Seed small. Fine reports of it from many places.

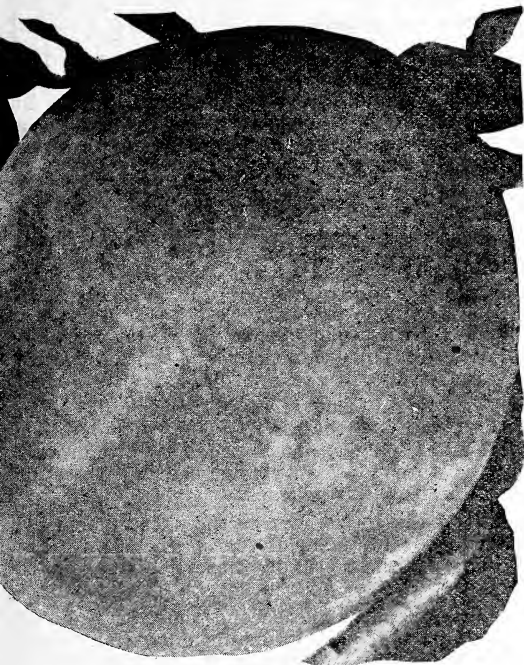
Parker County, Texas, Dec. 9, 1914.

The stock I received from you two days ago was more than satisfactory. I have had several small orders from your nurseries during the last several years and every thing has been true to name and description. All good strong vigorous trees and bushes.

Yours truly, E. J. REYNOLDS.



## PEACHES—Continued



Munson Free

## PERIOD VI—JULY 15 TO AUGUST 1.

**Gold Dust.** (J. C. Evans, Mo.) Prolific. Tit small. Skin quite fuzzy, orange, mostly covered with bright crimson, handsome. Flesh orange, very firm, a little red at stone, best quality cling. Very pretty.

**Munson Free.** (T. V. Munson, Tex.) More certain and prolific than Elberta. Tit small, suture distinct, slightly larger on one side. Skin quite fuzzy, greenish yellow, mostly covered with crimson. Higher color and better quality than Elberta. Flesh yellow, red near pit, firm, good to very good quality. Seed medium. Special price, 25c each.

**Belle of Georgia.** Large; skin yellow, with red cheek; flesh yellow, firm, and of excellent flavor; the fruit is uniformly large and showy; very prolific bearer. A seedling of Chinese Cling. The standard market variety of its season.

**Sylphide.** Medium, white cling, of best quality. Sure and heavy bearer. Best to thin out fruit, so tree will not carry overload.

**Bequett Cling.** Large, fine, handsome. White flesh with bluish red skin.

**Bequett Free.** (Calif.) Prolific. Suture indistinct, sides equal. Skin creamy, mostly covered with clear red of fine appearance. Flesh white with little red next pit, firm, of high quality, free. Seed medium.

**Blanchard.** (C. C. F. Blanchard, Mitchell Co., Tex.) Of Chinese Cling type. Tit broad, suture deep, sides unequal. Skin greenish cream, mottled with dull red, little fuzzy. Flesh greenish white next skin, dark crimson next seed, very firm, of rich quality when fully ripe. Very attractive. This variety is well adapted to the Pan Handle of Texas. Note the following report from Amarillo:

Amarillo, Texas. Aug. 30th, 1915.  
Mr. Munson, Denison, Texas.

Dear Sir:

I am writing you about the Blanchard peach. You will remember that you sent me some of them several years ago. I went to see the tree of Judge Veal yesterday and I went and saw Mr. Hume's tree this morning. The fruit on these two trees are simply immense. I measured several on the Hume tree and they are 10 inches in diameter. I believe that this peach is a great peach and we should put it on the market. The Hume tree is full of fruit and in his orchard are several Elbertas and the Blanchard peach is twice as large as the Elbertas.

Let me hear from you on the subject. I am convinced that this peach if properly placed before the public will in the end have an immense sale. Yours truly,

C. C. F. BLANCHARD.

## PERIOD VII—AUGUST.

**Lady Lindsey.** A seedling that came up in the yard of Mrs. George Lindsey of Greenville, Texas, and brought to our attention by L. L. Bowman of same place. Very large and attractive, having a rich red skin underlain with yellow. Flesh of golden yellow, juicy and of fine quality. It ripens after the Munson Cling and before the Henrietta, filling in the gap between these two excellent clingstones, making a fine trio of yellow clingstone peaches. The tree is a good bearer, 50c each.

**Columbia.** (Mr. Coxe, Ga.) Indian type. Skin mottled brown, underlain with dull orange yellow. Flesh rich, yellow, buttery, high quality, free.

**Tarbell.** Large, pale yellow, free stone, of the finest quality. Very showy.

**Ringgold.** (Wilkins, N. J.) Seedling of Heath Cling and an improvement on that variety. Productive. Skin creamy white with streaks of blush near stem end. Flesh white to the seed, of best quality and sweet. Cling.

**Henrietta.** (Levy Late. Originated in Ky.) Tit prominent. Skin orange yellow, with crimson cheek. Flesh yellow, firm, sweet and of high quality. Cling. Very handsome.

**Raisin Cling.** (Coweta Co., Ga.) Supposed Columbia X Heath cross. Skin dull white, covered with mottled reddish brown. Flesh white, tinted with red. The finest quality of any cling known to us. Fine for sweet pickles.

**Salway.** (Thos. Rivers, England.) Skin rich yellow, covered with crimson. Flesh rich buttery yellow, fine for canning. Free.

**Crawford Late.** A large yellow freestone, well known North and is doing quite well in western Texas and New Mexico.

## PERIOD VIII—SEPTEMBER AND LATER.

The varieties named below generally ripen in September, but, as with all late varieties, the season will vary. Some seasons those included in this ripening will hold on until October while in other seasons they will ripen in the latter part of August.

**Barnes.** (Barnes Parker, Bell Co., Tex.) Productive. Contains Indian and Mexican blood. Very sure and prolific. Skin dull yellow, covered with reddish brown mottlings. Flesh yellow with red next to seed. Cling.

**Bonanza.** (T. V. Munson, Tex.) Sure and productive, and in drouthy seasons will carry its crop to maturity. The best of the late varieties, although the specimens will be small if there be drouth. Tit prominent and broad, suture distinct, sides unequal. Skin creamy white, with blush on one side near stem end. Flesh pure white with red around seed, firm, free. Seed small.

**Success.** (T. V. Munson, Tex.) Ripe in October; medium yellow, cling, fine quality.

## The Frank Peach

(See illustration front cover page.)

This is a yellow cling stone, ripening two to three weeks after the Elberta. The size is large, globular. The color of skin is yellow covered over with rich red, giving it a very attractive and handsome appearance. The quality is of the very best. In Central Texas where they have had many peach failures, this variety has always set a full crop. So where peaches have been discarded on account of too frequent failures, this variety will come to the rescue and make sure crops.

This variety originated with J. W. Stubenrauch, who gave us the Carman peach. The Carman peach, as we all know, has become one of the standards for the Southwest. So we can count upon Mr. Stubenrauch in giving us even a better peach than the Carman.

Below we give Mr. Stubenrauch's statement of the

### ORIGIN OF THE FRANK PEACH.

After the accidental production of the Carman, over twenty years ago, I got to thinking whether it would not be practical or successful to improve our stock of peach varieties by general cross pollination and then planting the seeds.

The more I studied over it the more I felt convinced that it could and ought to be done. I was at that time in possession of an Elberta tree that from some cause or other produced superior fruit and the tree itself was much larger, more productive than any on the place. Buds from this tree were inserted into tops of young bearing trees of Bells October, which by the way is one of our finest quality peaches.

When the Elberta limbs on the Bell October trees got to bearing the finest specimens were selected and the seeds planted. This was done for a number of years. In 1903 a great many were thus planted. The spring following all the best of these seedlings were taken up and planted into regular orchard rows.

To my surprise one of them produced two fine peaches the second year, or eighteen months from the time of planting the seed. And stranger still, it has not missed once ever since bearing some fruit. Several times they had to be thinned when but few other kinds were bearing.

I was in a quandary at first regarding a suitable name for it, but finally decided on FRANK, because we can depend on it just the same as we can depend on Frank Holland, of Farm and Ranch (for whom it is named) whenever us farmers and fruit growers need assistance in a general way.

The original tree this season is having its eleventh regular crop, the tree itself being yet in a thrifty and healthy condition.

Being now fully convinced of the great value of this peach and having a good young orchard of it, I feel it my duty to let the public have the benefit of it also. Having dealt with T. V. Munson, and later T. V. Munson & Son, off and on for thirty years and always finding them strictly reliable, getting the best of stock in good condition and true to name, when the question came as to who should introduce this valuable peach to the public it was but natural that I would turn to this firm to do so, feeling perfectly satisfied that the public would get satisfaction in dealing with these people.

(Signed) J. W. STUBENRAUCH.

### PRICES OF THE FRANK PEACH.

This is the first season of introduction and we have but a limited stock. By another season we expect to have a large stock to meet all demands.

June Bud Trees, 75c each; \$7 per dozen; \$40 per 100. Grafted Trees, one year tops on two year roots, 6 to 7 ft., \$1.00 each; \$10 per dozen.

## Raspberries

Plant same distance as Blackberries. Need best drouth-resisting soil, on eastern or northern slope.

### PRICES.

	Doz.	100	1000
F. O. B. Denison.....	\$0.50	\$2.50	\$18.00
Prepaid, in orders of \$5.00 or more.....	.60	3.00	20.00

### BLACK-CAPS.

**Kansas.** A very large excellent fruited black-cap, one of the best for a dry, hot climate.

### RED VARIETIES.

**Cardinal.** Very vigorous and prolific, dark red, very large. Originated in Kansas. Succeeding very well here. One of the most profitable varieties.

## Blackberries

Plant 2 feet apart in rows, rows 7 feet apart, requiring 3,112 plants per acre, Succeed anywhere.

Read Fuller's Small Fruit Culturist. Price, \$1.50.

VARIETIES IN SUCCESSION	PRICES					
	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Doz.	100	1000	Doz.	100	1000
<b>McDonald</b> appears to be a hybrid between a blackberry and dewberry. Large and good quality. The flower being pistillate needs a staminate or perfect flowering kind nearby to pollinate; when thus pollinated it is very productive.....	\$0.50	\$2.00	\$15.00	\$0.65	\$2.50	\$18.00
<b>Sorsby May.</b> A blackberry larger than Early Harvest, and ripens about a week earlier. Very productive and a good shipper; very valuable on account of its extreme earliness.....	.50	1.50	12.00	.75	2.00	14.00
<b>Dallas.</b> Very vigorous, drooping, thorny, productive, large, fine. This is proving to be a very valuable market variety.....	.35	1.00	10.00	.50	1.25	12.00
<b>Robison.</b> Very vigorous, upright, prolific, uniformly very large; of best quality. Sells at the highest market price. Originated by Willard Robison, at Cisco, Tex. It has fruited here for a number of years, and has proven itself one of the most valuable varieties in cultivation. It endures the climatic hardships most excellently.....	.50	2.00	14.00	.75	2.00	15.00
<b>DEWBERRY</b>						
<b>Mayes.</b> (Austin's Improved, Austin-Mayes.) Very large, early, prolific.....	.35	1.25	10.00	.50	1.50	12.00

## Strawberries

Plant 16 inches apart in rows, rows 3½ feet apart, requiring 9,000 plants per acre. Deep loamy, sandy soil, with clay sub-soil is preferable.

Read Fuller's Strawberry Culturist. Price, 25 cents.

Our plants are not like those handled by many growers—weak, old and mixed—but young, vigorous and pure. The very best varieties by actual test for the Southwest. Handled in the very best manner. We test nearly all varieties of any promise as they come out. The following are the cream for this climate.

The varieties are named in the order of ripening. Staminate kinds will bear alone. Pistillate varieties will require a staminate variety to be planted near them to pollinate them. S—Staminate. P—Pistillate

	PRICES					
	Packed F. O. B. Denison			Prepaid if in orders of \$5.00 or more		
	Doz.	100	1000	Doz.	100	1000
All varieties.....	.25	.75	4.50	.30	1.00	6.00

**Excelsior (S).** Medium size, dark red, firm, almost round. Stem short. Fine shipper and an extra early sort.

**St. Louis (S).** Large, light red, prolific, showy. The plant very hardy and stands drouth well, in fact plants of this variety stood drouth better than any other in same field.

**Lady Thompson (S).** Blunt, top-shaped medium to large, bright red, prolific but season short.

**Early Ozark (S).** Very large, black glossy red when well ripened, firm, of fine flavor.

**Klondike (S).** Peculiarly suited to great range of country over the Southwest. Large, blood red skin. Fine flavor and distinctive.

**Texas (S).** Dark red, round, medium size; productive; firm. Short stem.

**Mellie (P).** Large, ovate with neck, of Haverland type. Endures drouth well. Bright red, good shipper.

**Haverland (P).** Ovate or long, calyx turned back, giving appearance of neck. Light red, productive.

**Aroma (S).** Large, bright red, conical. One of the most valued of late sorts.

**Gandy (S).** An old variety, large, good color.

**Evening Star (S).** In Arkansas and Missouri has been found to be the largest and most productive of all late sorts; not tried in Texas. Has fine color. Plant robust.

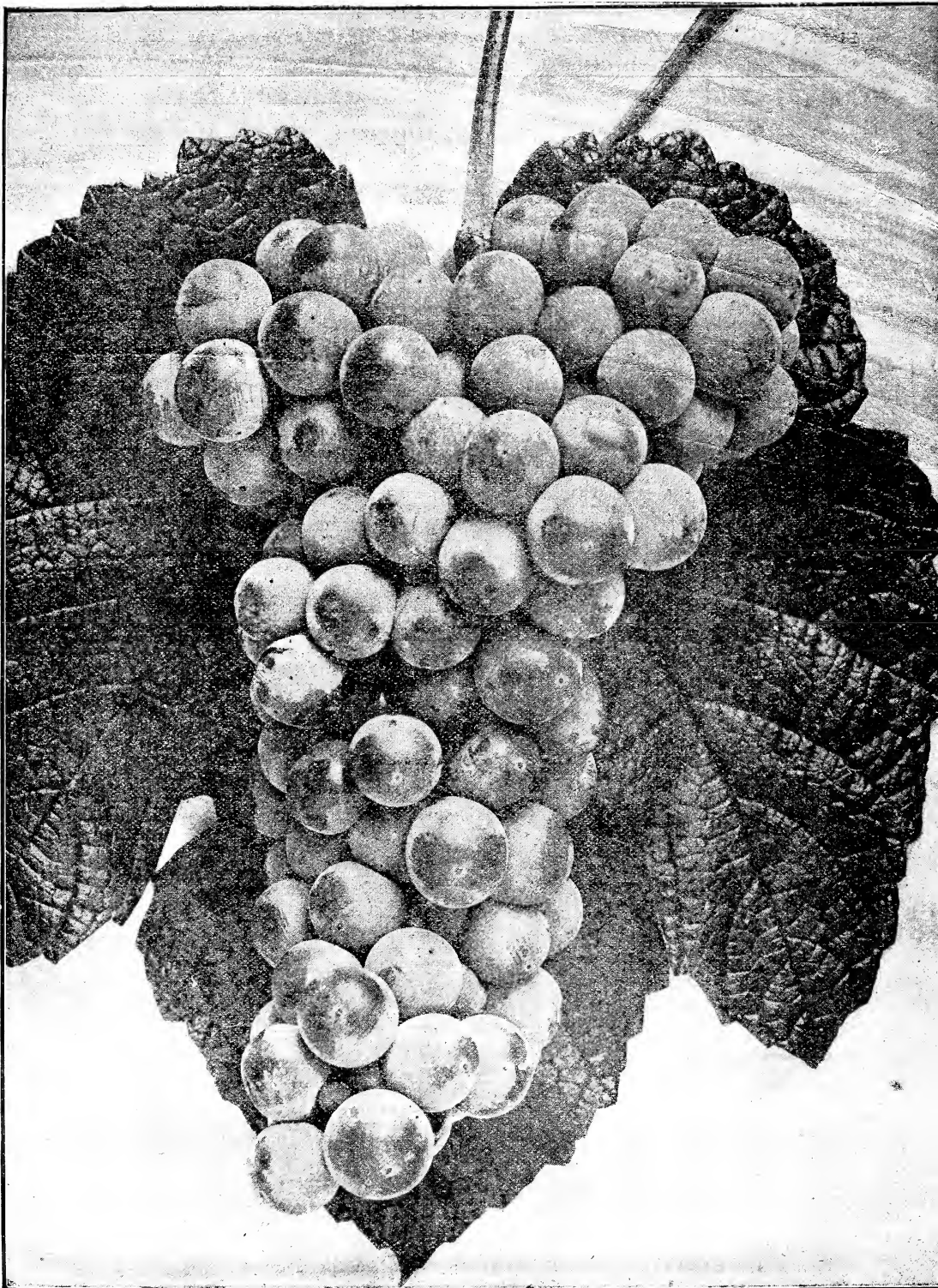
**Parker Earle (S).** Berry large conical with short neck, glossy scarlet-crimson. When given hill culture on rich, well drained soil it is very productive.

## Elaeagnus Longipes, Goumi

Here is a magnificent shrub, with leaves dark green above and silvery beneath, perfectly hardy, bearing a crimson, cherry-like fruit (with one small, long seed), of refreshing, tart flavor, making an immense crop every year, ripening in May here. **PRICE**, 50 cents each.

## Hardy Orange (See under hedging plants.)





Albania 1911



Grapes

1915-1916

WE LEAD ALL COMPETITORS IN THIS FIELD.

The Grapes have constantly been the most certain and profitable of any fruits that we have grown.

PRICES.

Unless 1-year vines are especially ordered, we will fill all orders with 2-year vines, if in stock; if no 2-year vines of the variety ordered, will send first class 1-year. No difference in price between the 2 and 1-year vines. The price is based on 1-year vines. Either age will come into bearing at same time after transplanting.  
See full explanation of prices at bottom of page 2.

VARIETIES.

PRICES

On following pages are described in order of ripening.  
(Here grouped according to prices.)

Packed			Prepaid if in orders		
F. O. B. Denison			of \$5.00 or more		
Each	Doz.	100	Each	Doz.	100
\$0.10	\$0.75	\$4.00	\$0.11	\$0.90	\$4.75
.10	1.00	6.00	.12	1.20	7.00
.15	1.50	9.00	.17	1.75	10.00
.20	1.75	11.00	.22	2.00	12.00
.20	2.00	15.00	.22	2.25	17.00
.75	8.00	....	.80	8.25	....

(For Vinifera and Muscadines, see under their respective headings.)

CULTURE.

We have prepared a pamphlet on the culture of grapes which is re-print of Chapters V and VI from "FOUNDATIONS OF AMERICAN GRAPE CULTURE" and consists of 20 pages. This pamphlet will be sent free to all of our customers purchasing grape vines to the amount of \$2 or more, if such is requested. If the pamphlet is desired, please so request it when sending in your order. To others it will be mailed for 25 cents.

- The following are good books on the grape:  
"Foundations of American Grape Culture".....\$2.00  
"American Grape Growing and Wine Making".....1.50  
"Grape Culturist," Fuller.....1.00

TO AID IN SELECTING VARIETIES FOR THE DIFFERENT REGIONS.

While all of the varieties we list succeed to a greater or less degree here at Denison, Texas, on warm sandy soils with clay subsoil, there are other soils and regions where only certain varieties are successful. At the end of the description of each variety will be found capital letters indicating the regions for which they are recommended.

- The Letter **G** indicates for the Gulf Coast region, or 100 miles back from the Gulf north of Corpus Christi.  
The letter **R** indicates those for the Rio Grande region and all south of San Antonio, and for El Paso and Pecos River regions; Arizona and California.  
The letter **B** indicates those for Black Waxy and Limy soils throughout the South.  
The letter **E** indicates for more or less sandy soils of East Texas and other moist regions of the Southern States north to Arkansas and Kentucky.  
The letter **P** indicates for the Red Plain region of western Texas north of T. & P. Ry., western Oklahoma, Oregon and Washington.  
The letter **S** indicates for the Staked Plains west of the Red Plains region; western Kansas, and eastern New Mexico.  
The letter **M** indicates for the central Mississippi region, and Atlantic slope, north of Carolina to latitude of Cincinnati and St. Louis.  
The letter **N** indicates for New England States, New York, and southern Ontario.  
The letter **W** indicates for Wisconsin and west to Rocky Mountains.

For decided success in the moister regions, mildew and rot must be prevented by spraying.

All the varieties possessing Post-Oak Grape blood, in order to get best results in cropping, should be treated the same as Herbermont, that is, plant wide apart, as much as twelve to sixteen feet in the rows, and have long arm pruning. They do especially well upon the Munson Canopy Trellis, mentioned in Foundations of American Grape Culture, page 224. Distance apart to plant and kind of pruning required for best results are mentioned with each variety.

EXPLANATIONS OF ABBREVIATIONS AND SIGNS USED IN THE DESCRIPTIONS OF GRAPES ON THE FOLLOWING PAGES.

All bearing grapes have one of two kinds of flowers—both kinds are pistillate, but one has perfect stamens and will bear alone; the other has imperfect stamens and will require perfect stamen variety blooming at the same time planted near to render the imperfect stamen variety fruitful. Some of the best varieties are those having imperfect stamens. In the following descriptions characters are given after the name of the variety which will indicate to the reader the kind of flower and date of flowering. So in selecting mates for the imperfect stamen kinds, select those varieties with perfect stamens, blooming within three days earlier or at the same time. The perfect flowering kinds are indicated with an asterisk (\*); the imperfect stamen kinds with the dagger (†). The date of flowering is

## GRAPES—Continued

1915-1916

indicated immediately after such sign. As all grapes bloom here in April and May, these two letters, (A) for April, and (M) for May, are used, the figures following these letters indicate the date in that month.

All dates mentioned are for Denison. While they will vary in other sections, the relative position will remain the same. This subject is fully treated in Foundations of American Grape Culture, pages 112, 131 and 212.

## DESCRIBED IN ORDER OF RIPENING.

(Many of these varieties have full page half tone illustrations in "Foundations of American Grape Culture.")

## PERIOD I—LAST OF JUNE.

**Pearl of Csaba.** (See under Vinifera list, page 23.)

**Headlight.** (†A19) Hybrid of Moyer with Brilliant. Vine slender, but more robust than Delaware, and making much longer vines, less attacked by mildew, leaves resembling those of Brilliant, but not so large; clusters small to medium, very compact, shouldered; berries clear, dark red, globular, medium or above in size, very persistent. Skin thin, tough; pulp tender, very sweet, almost equal to Delaware in quality and the finest in quality of any American grape ripening so early. Seeds few. E. P. S. M. N. R. W.

## PERIOD II—JULY 1 to 10.

**Brilliant.** (\*A17) (Lindley x Delaware.) Growth strong. Vine endures winters anywhere up to 15 degrees below zero. Clusters large, cylindrical, or somewhat conical, often shouldered, open to compact. Berries large, globular, light to dark red, translucent, with a thin bloom, very handsome when well ripened; skin thin, rather tender, but seldom cracks; pulp meaty, yet very tender, melting, and delicious, usually preferred for table and eating fresh to Delaware. Seeds readily part from the pulp. Ripens just before the Delaware and yields on an average fully twice as much. It ships about equally as well or better than Concord. Its foliage is less attacked by mildew than Delaware, and spraying with Bordeaux mixture will entirely prevent this. R. E. P. S. M. N.

**Manito.** (†A20) Hybrid of America and Brilliant. Growth very similar to America, endures extremes of climate very well. Clusters long, cylindrical, rather open, with long peduncle; flowers perfect, bears well alone, but better among other kinds blooming with it, very prolific; berries medium, globular, persistent, dark purple, with white specks; very distinct and unique in appearance; skin thin and tough, pulp very tender, juicy, sweet and agreeable, parting from the seeds with ease. Ripens very early, about with Moore Early, packs beautifully and ships excellently. A very profitable market grape, also a good wine grape. E. P. S. M. N. W.

**Lomanto.** (\*A20) Hybrid of Salado and Malaga. Vine vigorous, prolific, healthy, no rot or mildew; leaf medium, having little pubescence; cluster above medium, conical, properly compact; berry very persistent, medium to large, spherical, dark purple or black, skin thin, tough; pulp melting, excellent quality; juice claret red. Valuable for limy soils and hot climate. See note under Nitalad. B. E. P. M. N.

**Clocta.** (\*A25) Parentage—America x R. W. Munson. Cluster large, berry large, black, handsome; skin thin, handles well; pulp tender, juicy, springy, far better quality than Concord. Vine very vigorous and prolific. Uses, market, table, red wine. 10 to 14 feet, long pruning. Requires hot, dry weather to acquire high quality. E. S. M.

**Ladano.** (†M4) Hybrid of Salado and Headlight. Vine vigorous, healthy, foliage similar to that of Headlight; cluster medium, compact; berry medium or above, dark, clear purplish-red, translucent, round; skin thin, tough; pulp tender, melting, rich, pure and sweet; seeds few. Fine for hot climate and limy soils. See note under Nitalad.

**President.** (\*A18) Pure seedling of Herbert. Has a much better vine, which is strong,

healthy, and prolific. Flower perfect. Cluster medium, compact; berry large, black, persistent, does not crack. Ripens with Moore's Early and of far more value in the South than that variety. Quality excellent, much better than Concord. R. E. P. S. M. N. W.

## PERIOD III—JULY 10 to 20.

**Captivor.** (\*A18) A cross of Herbert with Meladel, that is a combination of Rogers No. 44, his best black grape, Delaware, Goethe, and Lindley. The growth is fairly vigorous, foliage less attacked by mildew than Delaware. Very prolific. Cluster above medium, cylindrical. Berry large, round, of a beautiful bright translucent pinkish red, no handsomer grape grown. Skin thin, tough, without cracking. Pulp melting, of exceedingly delicious flavor, nothing superior. Seeds 1 to 2. Sugar of juice on Oechsle scale 85 to 95; acid per mill 6½. We think this grape will make a marvelous record over a very extensive region. Should prove hardy as far North as Central Illinois, Ohio, and in Massachusetts. In beauty and quality we are sure it is the finest grape yet produced in America. Ripens with Delaware. R. P. S. M. N. E.

**Delaware.** (\*A20) Full historic description, page 143, Foundations of American Grape Culture, and illustrated on page 145, same book. Cluster medium, berry medium, bright, red, juicy and of highest quality. Succeeds well in the South. Does not rot, but needs spraying to ward off Downy Mildew. E. S. M. N. B.

**Delakins.** (\*A20) A cross of Delago with Perkins, that is, a combination of Delaware, Goethe, and Perkins. It has the robustness of Perkins, the handsome cluster of the Delaware, but larger, and the size and shape of the berry of the Perkins, with the bright red of the Delaware. The berries are persistent, and in quality approaching the Delaware. It is very prolific and a splendid market and table grape. It should succeed over the same range of country as does the Delaware, and owing to its greater resistance to mildew and its fine market qualities, this variety will probably become popular. Ripens after Delaware. G. R. E. P. S. M. N. W.

**Rommel.** (\*A18) Hybrid of Elvira and Triumph. Growth medium, endures climate better than Concord. Requires short pruning. Prolific. Slightly attacked by mildew in wet, sultry seasons, but less so than Delaware. Clusters medium to small ovate or cylindrical, often shouldered, compact, peduncle short. Berries large, globular, persistent, greenish yellow when fully ripe, skin very thin and delicate, too tender for long shipment, carries well 50 to 100 miles; very profitable for a home market grape, as it is always in demand on account of its most agreeable and fine eating qualities. Pulp melting and perfectly delicious when well ripened, but acid when under-ripe. Fruit rarely or not at all attacked by rot. R. E. P. S. M.

**Bell.** (\*A15) A hybrid of Elvira with Delaware. Vine vigorous, healthy, free from mildew and leaf folder, very hardy, a good sure producer; cluster medium cylindrical, often with a shoulder, fairly compact; berry medium, round, greenish yellow, rarely attacked with Black Rot; skin thin, sufficiently tough to prevent cracking under ordinary weather changes; pulp rather tender, juicy, very sweet and agreeably flavored; ripens just before Concord. E. P. S. M.

## GRAPES—Continued

1915-1916

**Hernito.** (\*A26) A seedling of Roger's No. 44, Herbert. Vine very vigorous, healthy, with foliage similar to that of Concord, endures the climate of Texas better than Concord, but more specially recommended for Northern States where something much better than Concord is desired. Flowers perfect, cluster of medium size, compact; berry very large, black. Ripens before Concord and far superior to it; much more persistent to the cluster, never cracks and hence a much better shipper. Very prolific. An improvement upon the Herbert, which was regarded as Roger's best black hybrid. R. E. P. S. M. N.

**Wapanucka.** (\*A22) (Rommel x Brilliant.) Growth medium to strong, equal with Concord, less attacked by mildew than Brilliant. Cluster medium to large cylindrical, shouldered, properly compact; peduncle short to medium. Berries large, five-eighths to seven-eighths inch in diameter, globular, persistent, rich yellowish white, translucent; skin very thin and delicate. Ripe about with Delaware. Far superior to Niagara and Green Mountain. For nearby market and table grape there is no other variety superior, if equal, to it. Very prolific, requires short pruning. R. E. P. S. M. N.

**Nitodal.** (\*A23) Salado hybridized with Malaga. Vine vigorous, healthy, cluster medium to large, conical, handsome; berry persistent, above medium, translucent, dark red; skin thin, never cracks; pulp melting, pure, fine, juice pale pink. Altogether very attractive and valuable; especially in limy soils and hot climate, and probably will succeed as far North as Missouri and Kentucky. This grape comes out of the species *Vitis Champini* of Southwest Texas which possesses endurance against climatic hardships in the South superior to any other species. This applies as well to Lomanto, Salamander, which are also bred out of this species by two generations of breeding. The parent, Salado, is a hybrid of one of the best *Vitis Champini* varieties with Brilliant. G. R. B. E. P. S. M. N.

## PERIOD IV—JULY 20 to AUGUST 1.

**Salamander.** (\*M3) A combination of Salado, Delaware and Lindley. Vine very vigorous and healthy, enduring drouth perfectly and 15 degrees below zero of cold. Prolific, of medium handsome, compact clusters of good, medium-translucent red berries, having thin tough skin, melting pulp of quality about equalling Delaware, seeds small. G. R. B. E. P. S. M. N.

**Lukfata.** (\*A20) (V. Champini x Moore's Early.) Growth strong. Endures heat, drouth and cold remarkably well. Succeeds in black, limy soils. Not injured by mildew. Cluster medium, ovate, sometimes shouldered, compact; berries globular, large, persistent; does not crack; pulp about same as Moore's Early, more juicy and very sweet and agreeable. B.

**Niagara.** (\*A17) Clusters large, compact; berry large, yellowish-green; skin tender; pulp juicy, better in quality than Concord, but not so good as Diamond. Needs spraying to ward off Black Rot. Better North than South, but succeeds better in the South than Concord. Needs short arm pruning in the South to prevent overbearing. G. E. P. S. M. N.

**Eriuson.** (\*M10) Seedling of America crossed with R. W. Munson. Cluster medium to large, compact and attractive. Berry medium, black. Skin thin and tough. Seeds small. Fine for table and wine. The vine is hardy, healthy and vigorous, and resists attacks of insects well. Plants 8 to 10 feet apart. Medium length arms should be left in pruning, as described on page 226, Foundations of American Grape Culture. G. E. P. S. M.

**R. W. Munson.** (\*A23) (Big Berry Post Oak x Triumph.) Growth strong. Clusters

medium to large, cylindrical, often shouldered, peduncle medium. Berries when well grown, medium to large, globular, persistent; black without bloom; skin never cracks; pulp tender, juicy and of a very good quality, better than Concord or Beacon. Ripe just before Concord. Gives good satisfaction on market. Bears heavily on long pruning and when pollinated by other erect stamened varieties flowering at same time, its own pollen not being fully adequate, although its flowers are perfect. Concord and Brilliant good pollinators for it. G. E. P. S. M.

**Beacon.** (\*A22) (Big Berry Post-Oak x Concord.) Growth medium in South Texas, becoming stronger in north Texas, to very strong in Missouri. Very prolific, of large cylindrical clusters, often shouldered, moderately compact. Berries as large or larger than Concord, black, with rather heavy white bloom, hang to cluster about equally well with Concord, but not so well as Bailey; skin a little tougher than Concord, never cracks; pulp rather more tender than Concord, very juicy, sprightly and of a very similar flavor to Concord; rather more agreeable; seeds readily leave the pulp. G. E. P. S. M.

**Concord.** (\*A18) Cluster medium to large, berry large, black with bloom. A well-known grape. Better North than South. In the South it does not ripen evenly. S. M. N.

## PERIOD V—AUGUST 1 to 10.

**Captain.** (\*A20) Parentage—America crossed with R. W. Munson. See description of these. Clusters very large; long cylindrical, reaching 10 to 12 inches; berry large, black with white bloom; skin thin; ships well; pulp tender, freeing seeds easily, quality nearly best, much better than Concord. Exceedingly vigorous and prolific. Uses, market, table, red wine. Medium season; 10 to 12 feet, medium pruning. Use Concord or Rommel as pollinators. G. P. S. M.

**Xlntha.** (\*A22) (America x R. W. Munson.) Growth strong. Clusters large, cylindrical, shouldered, with medium peduncle, fairly compact, unless not well pollenized, then loose; flowers have reflex stamens and perfect flowering kinds should be planted near, such as Brilliant, Delaware or Gold Coin. Berries medium to large, globular, persistent, black, with little bloom; skin thin, never cracks; pulp meaty, tender and of a very agreeable, sprightly quality. Ripe with or later than Concord. Very prolific on medium to long pruning; an excellent market and wine grape. G. P. S. M. E.

**Mericadel.** (\*A26) A hybrid of America with Delaware, produced in 1898. Vine very vigorous and very productive; cluster large, berry medium, purple, very persistent to cluster; skin thin and tough; pulp tender and meaty, of very best quality; fine for table and market. Ripens late, just after Concord. Doing finely in Florida and South-eastern part of United States. Pronounced of the best quality by many who have taken part in our "grape-tasting parties." Plant 8 feet apart, medium arms in pruning. G. E. P. S. M. N.

**Champanel.** (\*A20) (V. Champini x Worden.) Growth rampant, exceedingly resistant to heat and drouth, growing well in limy black soils. Clusters large conical, with long peduncle, rather open. Berries globular, large, black, with white bloom, persistent; skin thin, tough; pulp tender, juicy, very sprightly, acid unless well ripened, then quite agreeable; seeds rather large, easily leaving the pulp. Ripe about with Concord, which it resembles very much in cluster and berry. B.

**Amethyst.** Parentage—Delago x Brilliant. Cluster medium; berry large, clear red, with delicate bloom; skin thin and tough; pulp tender, quality the best. Uses, market, table, white wine. Medium season, with Concord.



## GRAPES—Continued

1915-1916

Plant 8 feet apart, short arm. Requires spraying. G. E. P. S. M. N.

**Extra.** (\*M1) (Big Berry Post-Oak x Triumph.) Growth strong; cluster oblong to cylindrical, sometimes shouldered, moderately compact. Berries persistent, globular, medium to large, dark purple to black, with moderate bloom; skin thin, tough, never cracks; pulp tender, juicy, sprightly, agreeable, sweet; seeds easily parting from the pulp. G. E. P. S. M. R.

**Ben Hur.** (\*A28) Parentage a combination of Post-Oak grape with Norton and Herbemont. Vine very vigorous, very prolific, free from rot and mildew; cluster large; berry little under medium, black, persistent; pulp very tender, juicy, sprightly, sweet. We consider this one of the most valuable of American wine grapes. G. E. P. S. M. R.

## PERIOD VI—AUGUST 10 to 20.

**America.** (†A23) (Seedling of Jaeger No. 70.) Growth very strong. Cluster conical, sufficiently compact. Berries very persistent, medium size, globular, black, with little bloom, and scattering dotted jet black, with white speck in center of dots; skin thin and tender, but does not crack; pulp melting, juicy, easily freeing the slender seeds, when fully ripe very rich in sugar; also rich in agreeable acid; possesses a very distinct, peculiar flavor, much liked by some; not "foxy," making a good combination market and wine grape. A very good port wine has been made from it without "fortifying." Very prolific with long arm pruning and when pollinized by other varieties, as it does not thoroughly pollinize itself. Beacon is a good mate. E. P. S. M.

**Bailey.** (\*26) (Big Berry Post-Oak x Triumph.) Growth strong. Clusters large to very large, cylindrical or often branching, generally compact. Berries persistent, large, black, with little bloom; skin thin and tough, never cracking; pulp meaty, but not tough, juicy, sprightly, of pure very good quality, considerably above Concord; seeds readily parting from pulp. A valuable market grape, easily superseding Concord, especially in South-Central and Southwest Texas, where it has done remarkably well. G. R. P. M. S.

**Blondin.** (\*A30) Combination of Ten-Dollar-Prize-Post-Oak, Norton Virginia, and Herbemont. Cluster large, compact, shouldered; berry medium, white translucent; skin very thin and tough; pulp very tender, juicy, sprightly, quality excellent, nearly best. Very vigorous, prolific. Late, with Triumph and Catawba in season. Very valuable as a late market and white wine grape. E. P. S. M.

**Valhallah.** (\*A20) A hybrid of Elvican and Brilliant; that is, one-fourth Mustang, one-fourth Elvira, one-fourth Lindley, and one-fourth Delaware. A very vigorous drouth-enduring prolific vine, well suited for black lands and will endure Missouri winters. Cluster medium; berry large, bright clear red; thin, tough skin; tender, juicy pulp of quality nearly equaling Brilliant. Hangs on perfectly; never cracks or rots. B.

**Wine King.** (\*A26) A hybrid of Winona and America. Winona is a pure seedling of Norton Virginia, and quite an improvement on that celebrated variety, hence Wine King is a thoroughbred pure America blood of the finest wine properties and large enough in berry and cluster to make a good market grape. It has been sold in the market and gives excellent satisfaction. Produced in 1898. Cluster large, berry medium, black, very persistent. Skin thin, never cracks, pulp tender and juicy, rich and sprightly, intensely red juice. Seeds small. Very vigorous, prolific; free from all disease. G. E. P. S. M. R.

**Manson.** (\*A26) An exceedingly valuable white grape. A hybrid of R. W. Munson with Gold Coin, produced in 1899. Vigorous and

productive; clusters large, berry above medium, of yellow color; skin thin and tough; pulp tender, quality excellent. Ripens late, with Triumph. E. P. S. M.

## PERIOD VII—AUGUST 20 to 30.

**Catawba.** (\*A18) Cluster medium, conical; berries above medium, clear dark red, globose; skin thin, tough; pulp rather tender, juicy, sprightly, with a slight Muscat flavor, not foxy. Excellent for table and wine. Does well North and fairly well South. E. P. S. M.

**Ellen Scott.** (\*M3) Armlong hybridized with Herbemont. Vine beautiful, healthy, vigorous, prolific. Suitable to the South as far North as St. Louis and Cincinnati. Cluster large to very large, conical. Berry large, translucent, violet covered with a delicate bloom. Skin thin and tough. Pulp tender, very juicy and sprightly, of pure high quality, reminding one of the best foreign grapes. A very handsome table and market grape. Ripens after Catawba. This grape ought to be especially valuable in West and Southwest Texas, where the European varieties will grow, and we believe will become a valuable commercial variety for those regions, as well as regions farther North and East. It has splendid shipping qualities. We anticipate for this grape a great future, and believe we have produced no grape of greater value. G. R. E. P. S. M.

**Armalaga.** (\*M2) A hybrid of Armlong (which is a hybrid of native Post-Oak grape with Black Eagle) and Malaga. The vine is vigorous and healthy. Flower perfect. Cluster large and compact. Berry large, yellowish-green, translucent, persistent to cluster. The skin is thin, tough, yet pleasant to taste, without astringency. It endures shipping as well as Tokay. In quality equal to the best foreign grapes. This promises to be very valuable in all of the drier portions of the Southwest, as it is much harder than pure Vinifera kinds. Its fruit would be taken by anyone not acquainted with native blood as a pure foreign grape and will sell equally well with such, while the vine is immensely superior to any of the foreign. Its quality is much richer than Malaga. R. E. P. S. M.

**Edna.** (†M3) Hybrid of Armlong with Malaga, and similar in every way to Armalaga, although the vine seems to be more vigorous. Clusters as large and as handsome as Armalaga. G. R. E. P. S. M.

**Carman.** (\*A26) (Post-Oak No. 1 x Triumph.) Growth vigorous; foliage never attacked by leaf folder or mildew; very prolific. Cluster large to very large; have reached two pounds in rare instances, shouldered or branched, conical, very compact. Berries persistent, medium, globular, black with thin bloom; skin thin and tough, never cracking; pulp meaty, firm, yet tender when fully ripe, of pure, rich quality, much superior to Concord; seeds easily leaving the pulp. G. E. P. M.

**Augustina.** Combination of Delaware, Goethe, Brilliant. Cluster large; berry very large, translucent carmine red, very handsome; skin thin and tough; pulp meaty, tender and juicy, quality the best, with very delicious characteristic flavor. Good grower, very prolific. Table, market, white wine. Season very late, after Catawba. Plant 8 feet, short arm pruning. Spray. R. P. S.

**Xenia.** (\*A20) Parentage: Delaware, Goethe, and Triumph. Clusters medium, compact, very large, white; skin thin and tough; pulp meaty, tender, highly flavored, best. Good grower, prolific. Very late. 8 feet, short arm pruning. E. P. M. R.

**Albania.** (\*M2) Parentage: Post-Oak x Norton x Herbemont. Cluster large to very large, shouldered; berry medium, translucent white; skin thin and tough; pulp very tender and juicy, sprightly, with Herbemont

GRAPES—Continued

1915-1916

character, but sweeter; very vigorous and prolific; uses, late market, table and white wine. Late, ripening with Fern, will remain on until frost; the latest white grape in cultivation. Plant 10 to 12 feet, and give long arm pruning, as described on page 226. Foundations of American Grape Culture. Price, group 2, page 13.

**Ronaldo.** (\*M4) Armlong-Malaga hybrid. Of the same general character as Armalaga, only the vine more vigorous and larger clusters. Ripens week later than Armalaga. White. G. R. E. P. S. M.

**Columbian.** (\*M-10) Seedling of Isabella, and first introduced as Union Village. Cluster small; berries immensely large, purple. Quality fair. Ripens unevenly. Its extreme large berries make it a novelty for those who wish large berries to be the prime object. Fine for jelly. E. P. S. M.

**Gold Coin.** (\*A23) (Norton x Martha.) Growth medium. Cluster medium or above, ovate shouldered, proper degree of compactness. Always sets a crop of well-filled clusters; peduncle medium to long. Berries large, globular, yellowish when fully ripe, persistent; skin thin, tough, never cracks, and rarely attacked by rot; pulp about same consistency as Concord; very juicy and exceedingly sweet; retains a little of the Martha flavor; liked by most persons. Very handsome in the basket and markets excellently; has always been very profitable. E. M.

PERIOD VIII—SEPTEMBER

Grapes in this period, while ripening here the last week of August and first week in September, will hang on for several weeks without deteriorating, as the nights are cool and birds have left.

**Jacques.** (Le Noir, Black Spanish.) (\*M2) Very prolific. Cluster rather open, but long and large. Berries small, very juicy and sprightly. Fine for red wine. Does well in Southwest Texas in semi-arid regions. In moister regions requires spraying to keep off mildew and black rot, to which it is subject. R. G. P.

**Herbemont.** (\*M4) Vine very vigorous, healthy and long lived in the South. Clusters large; berries small to medium, brownish red or translucent purple, not coloring much when in dense shade of foliage. Juicy and sprightly. Fine white or amber wine. Much

subject to black rot, which will have to be kept in check by spraying. Well adapted for the South and only as far North as Kansas, as winters with 15 degrees below zero and colder will damage it. R. G. P.

**Longfellow.** (\*A30) Hybrid of Armlong with Griesa, the latter a very fine Italian grape. Vine fair grower, very prolific, healthy. Clusters extremely large, often 10 to 12 inches in length. Berry large, oval, persistent, black, of high quality. One of the most magnificent show and market grapes, adapted to all varieties of soil and for regions as far North as Missouri. Will compete with foreign grapes in market. Plant 8 feet, with short arm pruning, as described on page 226. Foundations of American Grape Culture. Will require spraying in damp regions. G. R. P. E. S. M.

**Muench.** (\*M2) A hybrid of Neosho (a Missouri Post-Oak grape found by H. Jaeger) and Herbemont. Vine very vigorous and free from all disease; clusters large to very large; berries above medium, purplish black; pulp very tender and meaty, of fine quality. Sells readily in the market, also fine for table. G. E. P. M.

**Fern Munson.** (†M4) (Post Oak No. 1 x Catawba.) Growth very strong. Cluster medium to large with long peduncles. Berries globular, medium to large, very persistent; very dark purplish red to nearly black; skin thin, tough; pulp firm, but not tough; very juicy, sprightly, with very agreeable Catawba flavor when fully ripe; seeds leave the pulp readily. Ripens very late in August or early in September, and hangs on until frost if desired, becoming excellent in quality and giving full satisfaction in market. Very profitable, as it ripens when all old varieties are gone. Free from black rot. Has endured 27 degrees below zero and has borne well the following season. It endures drouth excellently. G. R. E. P. S. M.

**Last Rose.** (†M5) A hybrid of Armlong and Jefferson. Vine vigorous, healthy and prolific. Cluster very large, compact, long peduncle, conical, with heavy shoulder. Berry medium to large, dark bright red, round. Pulp tender, of very good quality. Ripening very late with or later than the Fern Munson, probably the latest grape in the list. Adapted to the same regions as the Ellen Scott. A very handsome market grape. G. R. E. P. M.

European or Vinifera Grapes

These succeed in the semi-arid regions of the South, Southwest and West Texas with irrigation. Owing to their poor resistance to phylloxera, mildew and rot they are not successful in moister regions of Central and East Texas. Some of the varieties do well for amateur purposes in North Texas when given winter protection. With thorough spraying of Bordeaux Mixture to hold mildew in check, they can be made to succeed where they otherwise would not.

Prices.	F. O. B. Scale			Prepaid		
	Each	12	100	Each	.12	1000
Malaga, Tokay, Violet Chasseals.....	\$0.10	\$1.00	\$ 7.00	.11	1.20	\$ 8.00
Csaba, Muscat Rose, Escol.....	.25	2.00	16.00	.27	2.25	17.00

**Csaba.** This is a new Hungarian variety that is creating great interest among the grape growers of that country, as it is by far the earliest fine market grape known. We fruited it several seasons and it ripened some ten days earlier than the Headlight. It is one of the freest from mildew and rot of foreign grapes. The cluster large, conical with long peduncle. Berry above medium, white, very tender, juicy, of delicious Muscat flavor.

**Flame Tokay.** Very vigorous, prolific; large cluster and very large berry; bright pink; very meaty and firm. Fine quality when fully ripe. A famous commercial variety for long shipments.

**Muscat Rose.** We have fruited this variety two very wet seasons and have found it to

be the freest from mildew and rot of any of this class yet tried, of which we have tested about sixty varieties. It is very vigorous, prolific.

**Pense.** (Malaga.) (Spanish.) Vigorous, and healthy; cluster very large; berry large, meaty, ovate, white; table, market raisin.

**Violet Chasseals.** Vigorous; cluster very large; berry large ovate, violet, beautiful, superb quality. Table, market, wine.

**Escol.** Introduced into the United States from Palestine by General Lew Wallace. Immensely large cluster. Berries very large, ovoid, purplish black, very firm and meaty, hence a fine shipper. Does not crack. Very handsome and showy grape.



## Southern Muscadines and Hybrids

**Price.**—25 cents each; \$2.50 per dozen F.O. B. Denison. 30 cents each; \$2.80. per dozen in Prepaid orders.

Succeed in deep rich soil throughout the South. Require much high trellis room. Plant 16 to 20 feet apart in rows. Require little or no pruning. Fruiting varieties, to render them fruitful, need male vine growing near to pollinate them.

A most excellent work on the Muscadine Grape has been published by the United States Department of Agriculture, entitled *THE MUSCADINE GRAPES* by Geo. C. Husmann and Chas. Dearing. It is a bulletin of 60 pages with numerous high grade half tones and colored plates. We have no copies of this bulletin for distribution, but if you send 25 cents to Superintendent of Documents, Government Printing Office, Washington, D. C., and ask for "Bureau of Plant Industry Bulletin No. 273, Muscadine Grapes," a copy will be sent you if still in print.

**Thomas.** Very large, black, two to five berries to cluster, not persistent. Best of the pure black muscadines. Good wine.

**Scuppernong.** Large bronze yellow, juicy, good wine. Four to six berries to cluster.

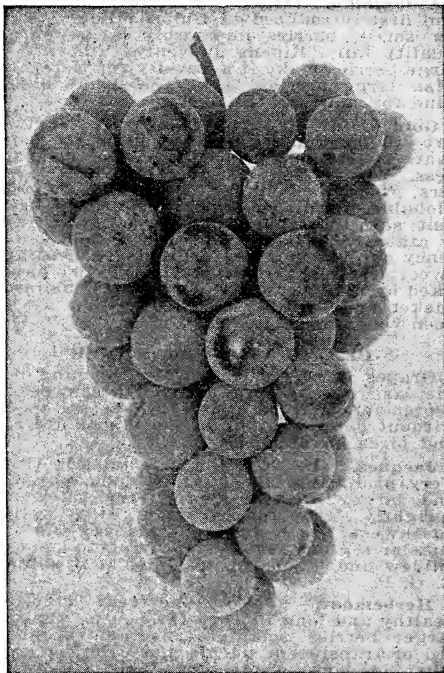
The following are hybrids of the Scuppernong made by us. The La Salle and San Jacinto being of the first generation and the others of the second generation from the Scuppernong:

**La Salle.** Hybrid of Muscadine and Post Oak. Large, black berry with 6 to 15 to cluster and more persistent than Thomas. Skin thin, pulp tender and better quality than Scuppernong. Earlier to ripen of this class.

**San Jacinto.** Berry above medium. Cluster a little more filled than La Salle, about three times the size of Scuppernong. Quality a little better than La Salle and follows it in ripening. Very prolific. Same blood as La Salle.

**Sanrubra.** Hybrid of San Jacinto and Brilliant; about the same size as in San Jacinto; berry not quite so large as Scuppernong; much more persistent to cluster; skin quite thin, but never cracking; pulp melting and of best quality. Nearly as sweet as Sanalba; a great acquisition. Very vigorous and productive.

**Male Muscadine.** To pollinate the bearing varieties to render them fruitful. One male for each six or less bearing vines will answer if all are in the same plat. At least one male should be in each plat, and one male for each six bearing vines when there are many bearing vines in the row.



## Resistant Graft Stocks for Grapes

**Prices.**—10 cents each; \$1 per dozen; \$7 per 100 F. O. B. 12 cents each; \$1.25 per dozen; \$8 per 100 Prepaid.

To meet the demand of some of our customers for good Stocks, resistant to phylloxera, on which to graft more delicate varieties of Grapes, especially the Viniferas, which thereby can be made very successful in many parts of the South, especially in South-western Texas, we have grown a small stock of the most approved, well tested species and varieties.

**Vitis Champini** variety Dogridge. Well adapted for limy and sandy soils. Native of Bell County, Texas.

**Vitis Doaniana** variety Adobe Giant. Fine for sandy and limy black soils. Native of Wilbarger County, Texas.

**Vitis Solonis** variety Australis. Specially fine for sandy soils. Native of Panhandle, Texas.

## Grape Leaf Hopper

The grape leaf hopper, or "thrips," as it is sometimes called, is a small insect, active in its movements, which feeds on the under side of grape leaves. It is yellowish when young, but turns darker with age. It sucks the juices from the leaves, causing the leaves to die in spots and to turn brown. A serious leaf hopper infestation decreases the amount of sugar in the grapes to such an extent that they are of little value for the manufacture of wine, grape juice, etc. Grapes injured by leaf hoppers do not properly ripen.

**REMEDY:** The insect can be easily killed with "Black Leaf 40," applied when the nymphs are small and tender. One thorough spraying is usually sufficient for the season. Thoroughly wet the underside of the leaves. This is very important. See Bulletin No. 97 (page 1), U. S. Bureau of Entomology. Also No. 344, N. Y. Exp. Station, Geneva, N. Y. Also University of California, Berkeley, Cal., Bulletin No. 198.



## Roses

### DIRECTIONS FOR PLANTING, PRUNING AND FERTILIZING

Any good garden soil is suitable, but should be well fertilized with decomposed stable manure. Keep the soil free from weeds and stir frequently during the summer. Mulching in fall with stable manure is beneficial. A small amount of bone meal or good fertilizer applied in summer is advisable.

**WHEN PLANTING.** cut off all but two or three of the strongest branches; cut these back to 3 inches. Plants thus cut back will transplant better and produce finer flowers.

**PRUNING.** After the first killing frost, most of the varieties should have two-thirds of the past year's growth cut off. As a general rule, the more vigorous the variety the less it should be pruned. Remove all decayed wood. Climbing Roses should have only their side branches shortened in; do not disturb the main stem.

**WE FREQUENTLY** receive complaints from our patrons who order late in the spring; they state the flowers produced on their roses are very inferior and do not come up to description. We would state that perfect flowers cannot be expected from plants set out late in February or March, and which produce blooms before they are well established. But if these plants are allowed to grow until the following fall, and if they receive the proper treatment, there will be no cause for complaint.

Read Henderson's Practical Floriculture. Price, \$1.50.

### STRONG, OPEN-GROUND, TWO-YEAR PLANTS

The following list includes the most superb varieties, both old and new. The plants are thrifty and vigorous, growing in open ground.

All these have been in bloom throughout the season, and we know them to be strictly pure and true to name and description. Our roses always give the best of satisfaction.

### Prices.

	F. O. B. Scale	Prepaid Scale
Each. . . . .	\$ 0.20	\$ 0.25
Dozen, made up of different varieties. . . . .	2.25	2.75
Dozen, all of one or two varieties. . . . .	2.00	2.50
Fifty, made up of different varieties. . . . .	9.00	10.25
Fifty, not less than ten of a variety. . . . .	8.00	9.00
Hundred, made up of different varieties. . . . .	17.00	18.50
Hundred, not less than ten of a variety. . . . .	15.00	16.50

### EVERBLOOMING WHITE AND BLUSH

**The Bride.** Pure white, with tinge of pink when planted in the garden; large, full and most perfect form.

**Clothilde Soupert.** Vigorous, profuse bloomer, with medium, very full, white flowers, with pink center.

**The Queen.** Pure snow-white; sweet and fragrant; petals are thick; makes fine buds on long stems; good grower.

**Antoine Revoire.** Very handsome Camelia form. Outer petals almost white, gradually becoming flesh pink toward center; robust, healthy.

**Bessie Brown.** Exceedingly handsome, petals recurving most gracefully, very delicate shade of shell pink or flesh.

**Kaiserin Augusta Victoria.** Pure white, fragrant; fine buds and flowers on long stems; profuse; strong grower.

**White Cochet.** Identical in shape and habit with that splendid pink rose, Maman Cochet, except the color is white, changing to blush.

**Carnot.** Flesh-tinted white. Long beautiful bud, cupped, wax-like.

**Frau Karl Druschki.** An everywhere hardy, vigorous grower, with bright green leaves, delicately veined; splendid long buds and magnificent snow-white blooms with large saucer-shaped petals. Rightly named and deservedly a prize winner.

### BUFF AND YELLOW

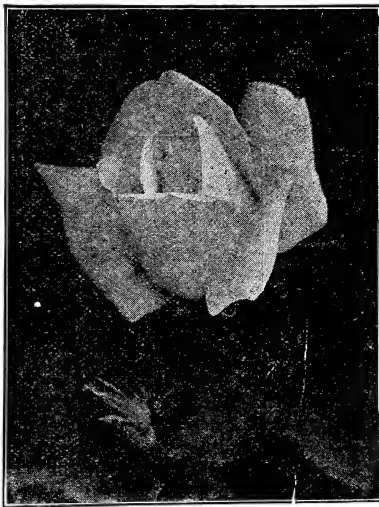
**Etoile de Lyon.** Rich, yellow, full, fragrant, pretty; profuse all summer.

**Blumenschmidt.** Pure citron-yellow; outer petals, edged tender rose. A sport from Mademoiselle Franceska Kruger, which it resembled in form.

**Marechal Nell.** Large, deep yellow, climbing habit. Needs winter protection.

**Marie Van Houtte.** Canary-yellow, deeper center, the border of the petals tipped with bright rose; large, full and fine form, a free and continuous bloomer.

**Sunburst.** This magnificent giant yellow Rose is a fine forer; it stands head and shoulders above all others of its color. It has long, pointed buds, which can be cut tight for market. The color is orange-copper or golden-orange and golden-yellow; edge of petals lighter; all intense shades, extremely brilliant in effect. Belongs in the class of big Roses; has created a sensation wherever shown.



**Madame Jenny Gillemot.** Buds long and pointed, deep saffron yellow, opening canary with dark golden shadings; blooms large, petals immense; opens very freely; a fine upright grower of branching habit. Exquisitely beautiful; very large in size; bud very long and pointed.

**Perle des Jardins.** Clear golden-yellow of a rich and beautiful shade; flowers large, globular in form and of great depth; richly perfumed.

### PINK

**Catherine Mermet.** Clear, shining pink with rich amber center; elegant buds and large globular flowers; handsome bush with dark green leaves. A parent of Bridesmaid and The Bride.

**Madame Caroline Testout.** Brilliant satiny-rose, deepening at center and bordered with silvery-rose; immense broad petals and extremely large flowers. The famous rose of Portland, Oregon.

## ROSES—Continued

**Duchess of Albany.** (Red La France.) Two shades darker than its parent, the Pink La France, of which it is a duplicate in size, form and habit.

**La France.** Silvery-rose, with pink shades and satin-like petals of unsurpassable beauty; large, symmetrical and deliciously fragrant blooms from June until frost; hardy with protection.

**Franceska Kruger.** Fine rich pink, creamy towards center, slightly penciled with deeper pink on outer petals. Healthy plant, great bloomer.

**Maman Cochet.** Rose or pink, shaded with salmon; profuse, fine bud and flower; strong grower; a very superior rose; one of the best for outdoor planting in Texas, also excellent for cut flowers.

**Aurora.** One of the grandest of all Hybrid Tea Roses. Color clear, bright pink, full and double to the center.

**Mrs. B. R. Cant.** A splendid hardy ever-blooming Rose. This variety is remarkable for its robust habit and the profuse manner in which it blooms. The flowers are of medium size, and of a beautiful deep rose color on the outer petals; quite red in some cases; while the inner petals are soft silvery rose, buff at the base. A healthy grower, free bloomer.

**F. R. Patzer.** A most beautiful and distinct Rose of very free flowering character. The blooms are produced with great freedom on stiff stems, and are of large size and substance. The color is creamy-buff, back of petals delicate warm pink; as the petals reflex the color becomes light orange-pink, forming a most charming combination. Valuable for garden culture.

**William Shean.** A fine grower, throwing up long, stiff canes, crowned with large pointed flowers of purest Killarney pink, full, free, and a perpetual bloomer. Immense size, perfect form and substance. Altogether a glorious Rose.

**Miss. Cecile Bruner.** Rosy pink on rich creamy white ground; a great bloomer; very satisfactory for bedding.

**William R. Smith.** (Charles Dingee, Jeanette Heller or Maiden's Blush; Smith, 1908.) Creamy-white with shadings of pink; a seedling from Maman Cochet and Kaiserin Augusta Victoria; beautiful in form and colors; glossy foliage; long, stiff stems; vigorous in growth; a superb summer bedder and hardy with light protection.

**Paul Neyron.** The largest of all Rose blooms; bright, shining pink, clear and beautiful; very double and full; finely scented; blooms first season and all summer. Grows to a great height in a single season and stems are almost thornless.

## SCARLET AND CRIMSON

**Meteor.** Intense velvety-crimson, buds and

blooms large, elegantly formed, fully double and borne on nice, long stems, with healthy, bright foliage of the deepest green. Brilliant and highly popular.

**Etoile de France.** (Star of France.) A brilliant shade of clear red-crimson velvet, centering to vivid cerise; large flowers on long, stiff stems; remarkably vigorous, free-blooming and hardy. Grown to some extent as a cut flower variety, but its chief value lies in its striking beauty as an outdoor bloomer and bedder with bronzy-green foliage.

**General McArthur.** (Hill, 1905.) Vivid crimson scarlet, the most beautiful shade of any garden or forcing rose offered, retaining its brilliancy when expanded to flowers of superb form, larger than Liberty or Meteor; free from mildew.

**Rhea Reid.** (Hill, 1908.) Described by the introducers: "Large as American Beauty (one of its parents), double as Bridesmaid, fragrant as La France, continuous as The Bride, and red as Richmond in winter. Produces a profusion of long canes and resists both mildew and black spot and makes most rapid growth."

**Madame Masson.** (Masson, 1856.) (H. P.) Massive, double and full flowers of intense red with crimson hue, highly perfumed; a constant and profuse bloomer, very attractive and striking.

**American Beauty** or Mme. Ford. J. T. (Ledechaux, 1875.) Generally conceded to be the most grandly beautiful of Roses in size, form and color. Rich rose, passing to crimson, very delicately veined and shaded and surpassingly fragrant. A hardy ever-bloomer and rapid grower.

## HARDY CLIMBERS

**Crimson Rambler.** One of the finest climbers; magnificent trusses of deep crimson flowers; makes a fine show as a climber and profuse bloomer for 2 weeks in spring.

**Climbing Paul Neyron.** Large flower, pink; constant. A superb variety, a fine companion for the next variety.

**Climbing Meteor.** A deep, double crimson climber. Constant in flower.

**Climbing Augusta Victoria.** Most beautiful white bud, and flower equaling in beauty the bush Kaiserin Augusta Victoria; constant.

**Climbing Testout.** Very strong. Light pink.

**Red Dorothy Perkins.** Profuse red, strong vine.

**Climbing American Beauty.** A seedling from American Beauty with an admixture of Wichuraiana and Tea blood. Same as its namesake in size, color and fragrance, with the addition of the climbing habit. Better blooming qualities, good foliage, and has proven hardy and withstood heat and drought. American Beauty × Marion Dingee × Wichuraiana.

## Hybrid Hardy Perennial Hibiscus

By hybridizing the native species *Hibiscus Moscheutos*, *Hibiscus Militar*, and *Hibiscus Coccineus*, we have obtained from the common Marsh Mallows a most remarkable lot of splendid varieties in numerous shades from pure white with crimson eye, through most delicate and rich pinks from blush to dark pink, crimson of many shades, and glowing scarlet, as though glossed with varnish. The colors all are of clear, fresh, lively shades. This group of wonderful flowers, rich enough for the garden of any king, eclipsing *Cosmos* and *Shasta Daisies* a thousand times, we have produced in a few generations of selecting and crossing. The flowers are often 8 to 12 inches in diameter and glow like suns of various colors. As soon as known these new creations will become exceedingly popular, as the plants are of the easiest culture and are perpetual bloomers throughout the summer in the driest seasons. They grow 3 to 6 feet tall. The tops die down in the fall but roots live for many years, sending up many stalks to flower each season. The seeds sown early in spring will produce blooming plants the latter part of the first season.

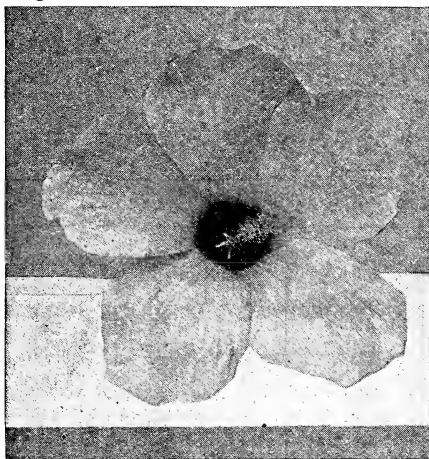
Of all the wonders produced by hybridization, none is more remarkable or strikingly beautiful for bedding in borders or in the garden than these.

We offer SEEDS of pink, crimson and white at 25 cents per packet.

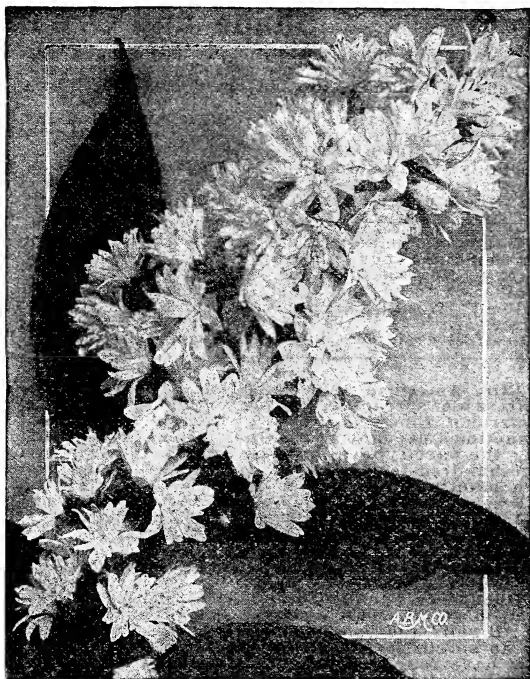
1-year roots, 10c each; \$1.00 per dozen; per 100.....\$6.00  
2-year roots, 15c each; 1.50 per dozen; per 100.....9.00







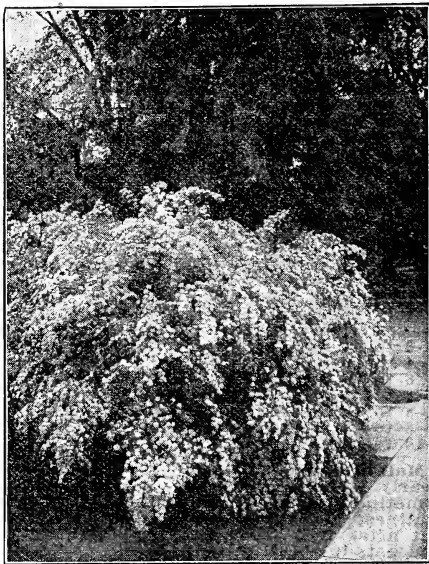
**Hybrid Hardy Perennial Hibiscus**  
Reduced to One-Third Size  
(See Page 24)



**Deutzia**, dainty tassel-like flowers. (See Page 28)



**Philadelphus Coronarius or Mock Orange**  
(See Page 28)



**Spirea Van Houttei**  
(See Page 29)

## SHADE AND ORNAMENTAL TREES—Continued

**Prices.** See full explanation on page 2, paragraphs 15 to 19.

the non-fruiting Paper Mulberry. This has a round head of compact form, well filled with leaves. The trees we grow are grafted, the same as the fruiting sorts. Sizes:

One year,	3 to 4 feet.....
	4 to 5 feet.....
	5 to 6 feet.....
Two year,	5 to 6 feet.....
	6 to 8 feet.....

**Poplar, Carolina.** (*P. Caroliniensis*.) Considered as distinct from the Cottonwood, it differs in its strict, straight appearance, making a more upright, uniform head. A very rapid growing, effective tree, much planted throughout our country. Free from cottony blooms. Sizes:

3 to 4 feet.....  
4 to 5 feet.....  
5 to 6 feet.....  
6 to 8 feet.....  
8 to 10 feet.....

**Sycamore.** A very symmetrical, quick growing. Easy to transplant. Older trees have white underbark. Large leaves. Adapted equally well to black and sandy soils  
 Sizes:

3	to 4 feet	.....
4	to 5 feet	.....
5	to 6 feet	.....
6	to 8 feet	under 1 inch
6	to 8 feet	1 to 1½-inch
8	to 10 feet	1 to 1½-inch
8	to 10 feet	1½ to 2-inch
10	feet up, 2	to 2½-inch
10	feet up, 2½	to 2½-inch
10	feet up, 2½	to 3-inch
10	feet up, 3	to 3½-inch

**Weeping Mulberry.** Those we have are grown from cuttings hence on their own roots, and not grafted on a straight body. As the tree grows, the under limbs can be cut off and the tree will make its own body of a very pretty effect.

3-year, 3 to 4 feet.....  
3-year, 4 to 5 feet.....

**Flowering Willow.** (See under Shrubs.)

PRICES					
Packed F. O. B. Denison.			Prepaid if in orders of \$5.00 or more.		
Each.	Doz.	100.	Each.	Doz.	100.
.15	1.60	12.50	.18	2.00	14.00
.20	2.25	16.00	.23	2.50	18.00
.25	2.75	20.00	.30	3.15	23.00
.30	3.50	27.00	.35	4.00	32.00
.35	4.00	.....	.45	5.00	.....
.10	1.00	8.00	.13	1.35	9.00
.15	1.50	12.00	.18	1.85	14.00
.20	2.00	15.00	.25	2.60	18.00
.25	2.50	20.00	.35	4.00	28.00
.35	4.00	32.00	.60	7.00	55.00
.10	1.00	7.00	.12	1.25	8.00
.15	1.50	12.00	.18	1.85	14.00
.20	2.00	15.00	.25	2.60	18.00
.25	2.50	20.00	.35	4.00	28.00
.30	3.25	27.50	.45	5.00	40.00
.35	4.00	32.00	.60	7.00	55.00
.50	5.50	44.00	.90	10.00	80.00
.75	8.00	.....	.....	.....	.....
1.00	10.00	.....	.....	.....	.....
1.50	17.00	.....	.....	.....	.....
2.00	22.00	.....	.....	.....	.....
.50	5.00	.....	.80	8.50	.....
.75	8.00	.....	1.15	12.00	.....

## Deciduous Flowering Shrubs

Largely in demand for massing or grouping effects in landscapes, parks or other ornamental planting, and also as single specimens. Much depends upon the skill of the artist or planter in the proper selection, grouping or massing of Flowering Shrubs, to bring out the most pleasing and artistic effects. It is scarcely practicable to define set rules. Good soil and good culture will be amply repaid.

Prices. See full explanation on page 2, paragraphs 15 to 19.		PRICES					
		Packed F. O. B. Denison.			Prepaid if in orders of \$5.00 or more.		
		Each.	Doz.	100.	Each.	Doz.	100.
<b>Althea, or Rose of Sharon.</b> (Hybiscus Syriacus.) Altheas are among our most valuable flowering shrubs, blooming for a long time, and deserve to be in every collection. We have an assortment of distinct kinds, namely, Duchess de Brabant, purplish red; Joan de Arc, pure white, and variegated white with pink penciling.							
1-year. . . . .		.20	2.00	.....	.22	2.25	.....
2-year. . . . .		.35	3.50	.....	.40	4.25	.....
<b>Butterfly Bush.</b> So named because the flowers attract the butterflies, and if there are many butterflies in the region, they will be swarming over the bush while in bloom. It is a strong growing shrub, with weeping branches, and at end of each branch there is a pendant of heliotrope like flowers of heliotrope or lavender color.							
2 to 3 foot bushes. . . . .		.50	5.50	.....	.60	6.50	.....



## DECIDUOUS FLOWERING SHRUBS—Continued

	PRICES					
	Packed F. O. B. Denison.			Prepaid if in orders of \$5.00 or more.		
	Each.	Doz.	100.	Each.	Doz.	100.
<b>Prices.</b> See paragraphs 15 to 19, page 2.						
<b>Bush Honeysuckle.</b> Upright with bending canes. Blooms in February with sweet white flowers.						
1-year. . . . .	.15	1.50	.....	.17	1.75	.....
2-year. . . . .	.20	2.00	.....	.25	2.50	.....
3-year. . . . .	.35	3.75	.....	.40	4.50	.....
<b>Crape Myrtle.</b> (Lagerstroemia.) This is a Southern plant, much esteemed, very effective both as a single specimen or a small tree, or in groups, as a large shrub. Blooms throughout the entire summer, producing great masses of beautifully fringed flowers in immense panicles. A single tree on the lawn is most effective, or a mass of them produces a most magnificent background. The crimson is a beautiful, bright red. The light pink is very distinct. We have three colors in stock, namely Light Pink, Improved Bright Pink, Crimson.						
1-year plants. . . . .	.15	1.60	12.50	.17	1.85	14.00
2-year plants. . . . .	.25	2.50	21.00	.30	3.25	23.00
3-year plants. . . . .	.40	4.50	.....	.50	5.50	.....
<b>Berberis Purpurea.</b> (Purple Barberry.) Foliage a beautiful deep purple all the year; a splendid specimen shrub and almost indispensable in contrastive groupings.						
2-year, 1 to 2-foot. . . . .	.25	2.50	.....	.30	3.00	.....
<b>Berberis Thunbergi.</b> (Thunberg's Barberry.) Dwarf. Inimitably neat and dense of growth, yet graceful because of its drooping branches. Yellow flowers are followed by vivid scarlet fruit, the foliage changing in fall to scarlet and gold.						
2-year, 10 to 18-inch. . . . .	.25	2.50	.....	.30	3.00	.....
<b>Deutzias.</b> Valuable, self-sustaining shrubs which vary considerably in height and habit, but bloom alike in dainty bell or tassel-shaped flowers borne thickly in wreaths along their branches. The taller sorts are useful for specimens, groups, and the background of shrubberies; the dwarfier, for borders or for planting near the house. We have two sorts, namely:						
<b>Deutzia Crenata.</b> Upright woody shrub that blooms early in spring, profuse and fragrant. Light pink.						
<b>Deutzia Watsonii.</b> (Pride of Rochester.) Double pure white.						
1-year. . . . .	.15	1.40	12.00	.18	1.70	13.00
2-year. . . . .	.25	2.50	20.00	.30	2.85	22.00
<b>Lilacs.</b> (Syringa.) Best beloved of all the old time garden shrubs; whose flowers never fail to charm with their delicate beauty or refresh with their tender fragrance.						
Common White Lilac, 2-year. . . . .	.15	1.50	12.00	.17	1.75	13.00
Common Purple Lilac, 2-year. . . . .	.15	1.50	12.00	.17	1.75	13.00
Rose Colored Persian Lilac. . . . .	.25	2.50	20.00	.27	2.75	21.00
Purple Persian Lilac. . . . .	.25	2.50	20.00	.27	2.75	21.00
<b>Philadelphus Coronarius, or Mock Orange.</b> (Improperly called Syringa, Sweet Syringa, etc.) A rather upright shrub of good appearance, bearing in April a profusion of single white flowers one inch wide, in rather dense racemes, very fragrant and effective.						
2 to 3 feet, 2-year. . . . .	.15	1.75	.....	.18	2.00	.....
<b>Philadelphus Grandiflorus.</b> Of same habit of growth as the Philadelphus Coronarius, except the flowers are larger and bloom in May here.						
2 to 3 feet, 2-year. . . . .	.15	1.75	.....	.18	2.00	.....
<b>Pomegranates.</b> Shrubs with glossy green leaves, with large, waxy-like, beautiful flowers about two inches across. General hardy in North Texas, but fully hardy from Waco, Tyler and South. We have two colors: Double Salmon Pomegranate, Double Scarlet Pomegranate.						
1-year, 1 to 2-foot. . . . .	.15	1.50	12.00	.18	1.75	13.00
2-year, 2 to 3-foot. . . . .	.20	2.00	16.00	.25	2.50	20.00
<b>Pyrus Japonica.</b> (Scarlet or Japan Quince, Devil's Fire.) A gorgeous sight of fiery red flowers very early in spring; in full bloom before leaves come out. Fine for single specimen, screen or hedge.						
1-year. . . . .	.15	1.40	11.00	.17	1.70	12.00
2-year. . . . .	.20	2.00	16.00	.25	2.40	18.00
<b>Privet.</b> (See under Hedging Plants.)						



DECIDUOUS FLOWERING SHRUBS—Continued

	PRICES					
	Packed F. O. B. Denison.			Prepaid if in orders of \$5.00 or more.		
	Each.	Doz.	100.	Each.	Doz.	100.
<b>Prices.</b> See full explanation under paragraphs 15 to 19, page 2.						
<b>Rhus Cotinus.</b> (Purple Fringe.) (Smoke Tree.) A conspicuous spreading shrub or small tree with large leaves; overhung in mid-summer by cloud-like masses of light, mist-like flowers—having the appearance of smoke at a distance. 2-year, 2-foot.....	.25	2.50	.....	.30	3.00	.....
<b>SALVIAS</b>						
<b>Gregii.</b> A new shrub found native in Southwest Texas. Blooms from early spring to late fall. Always covered with bright red flowers. Makes a neat, compact, graceful shrub 2 to 4 feet high. Endures heat well. 2-year, 2 to 3 feet.....	.50	6.00	.....	.60	7.00	.....
<b>SPIREA</b>						
All the Spireas bloom with a riotous extravagance which makes them quite striking. Their individual style, color and habits of growth differ so markedly that a collection of varieties will ensure bloom the entire season and still evade the monotony of repetition.						
<b>Spirea Argentea.</b> Medium growth. Spikes two to three inches long with delicate white flowers; the relative long stamens to short petals make it look fringe like. Blooms all summer. 1-year..... 2-year.....	.15 .20	1.50 2.00	..... .....	.17 .23	1.75 2.40	..... .....
<b>Spirea Billardii.</b> Strong growth. Spikes three to five inches long of closely set flowerlets of pinkish red color. Profuse and blooms all summer. 1-year, 1 to 2-foot..... 2-year, 2 to 3-foot..... 3-year, 3 to 4-foot.....	.15 .20 .25	1.50 2.00 2.50	10.00 15.00 20.00	.16 .23 .30	1.75 2.40 3.00	11.00 17.00 24.00
<b>Spirea Prunifolia fl. pl.</b> (Bridal Wreath.) Plum leaved foliage; tall growing, but will prune to any desired height. Blooms early in March and is very effective with its long gracefully curving branches covered thickly their whole length with small, double white flowers. 1-year..... 2-year..... 3-year.....	.15 .20 .25	1.50 2.00 2.50	12.00 16.00 .....	.17 .25 .30	1.75 2.50 3.00	..... ..... .....
<b>Spirea Van Houttei.</b> Pure snow white, single flower, with dark eye in center, borne in globose clusters similar to Reevesii in this respect, very graceful. A complete fountain of pure white bloom in April. 1-year..... 2-year..... 3-year.....	.15 .20 .30	1.50 2.00 2.80	12.00 15.00 21.00	.17 .24 .40	1.75 2.40 4.00	13.00 17.00 25.00
<b>Mint Tree.</b> (Vitex Agnus Castus.) Will grow to height of 20 feet in five to six years, but has shrub-like shape, globular in form. Leaves are deeply five fingered. Has spikes of blue flowers all summer. Foliage has mint-like fragrance. 1-year.....	.25	3.00	.....	.27	3.25	.....
<b>Flowering Willow,</b> so-called. (Chilopsis Saligna.) A fine tree-like shrub blooming profusely from spring or all through the summer, even in the hottest weather. Flowers purple, tubular, 1 to 2 inches long; very desirable for large yards. 1-year, 2 to 3-foot..... 2-year, 3 to 5-foot.....	.25 .40	2.75 4.50	..... .....	.30 .50	3.25 5.50	..... .....
<b>Hardy Orange.</b> (See under Hedging Plants.)						

Eddy County, Texas, Feb. 10, 1915.

The stock was satisfactory, all one could ask for. The packing was extra good. As I live fifty miles from Carlsbad, this is the first chance I have had to send you check. Every tree I got from you last year grew and are doing fine. I can't say enough for you. I think I will want a few more next year and you will get my order.

Truly yours, T. A. GRAY.

Monmouth County, N. J., Feb. 1, 1915.

I received your trees Saturday January 27th in the best possible shape, not even a scratch on them; they were packed perfectly, better than I ever received stock from nurserymen before. The trees were splendidly rooted and extra fine in every way and I thank you ever so much for them.

Yours truly, CHAS. W. MASON,

## Climbing Vines

These constitute Nature's own living drapery, indispensable to "set off" the various objects of a well appointed place. They are very graceful and effective.

**Prices.** See full explanation under paragraphs 15 to 19, page 2.

	PRICES					
	Packed F. O. B. Denison.			Prepaid if in orders of \$5.00 or more.		
	Each.	Doz.	100.	Each.	Doz.	100.
<b>Climbing Roses.</b> See list under Roses.						
<b>Honeysuckle, Chinese Evergreen.</b> Foliage light green, dense, rapid grower; flowers white and buff....	.20	2.00	16.00	.22	2.25	17.00
<b>Honeysuckle, Fuschia Leaved.</b> Of the coral type. vine upright, flowers red on outside of corolla with yellow inside, perpetual bloomer, very fragrant, generally evergreen, one of the best climbers. Foliage dark green. ....	.20	2.25	17.00	.23	2.60	18.00
<b>Honeysuckle.</b> (Halls.) Flowers very fragrant, white in opening, becoming buff. Very profuse, perpetual from early spring until fall; evergreen.....	.20	2.25	17.00	.23	2.60	18.00
<b>Climbing Euonymus.</b> (Euonymus Seiboldi.) Heretofore it has been used chiefly for ground-cover and low walls, but now it has proved its ability to climb high and preserve its character of a beautiful broad-leaved evergreen, even in the smoky city of Pittsburgh. For the first few years it clings closely to walls in a mat of small, glossy leaves, but when established it becomes more shrubby in character, throws out strong branches and has broad, glossy leaves similar to those of the Japan Euonymus shrub.						
2-year, 1 to 2-foot.....	.25	2.50	.....	.30	3.00	.....
<b>Trumpet Creeper.</b> A stout, woody, handsome vine with compound leaves and perpetual, waxy, large, tubular orange flowers in clusters; fine to ornament out-houses, tree bodies, etc., as it climbs by aerial roots....	.15	1.25	10.00	.17	1.50	11.00
<b>Wistaria.</b> American purple. Hardy; fine for arbors, porch screens, etc. Profuse in early spring.....	.15	1.40	11.00	.17	1.65	12.00
<b>Virginia Creeper.</b> (Ampelopsis quinquefolia.) Five-lobed or fingered leaf; bright green in summer, turning scarlet in fall; completely covers dead trees, brick walls, fences. Not poisonous.....	.15	1.40	11.00	.17	1.65	12.00

## Coniferous Evergreens

Much care should be exercised in transplanting Evergreens not to allow the roots to be exposed to sun or air. Our rule is to coat the roots, as soon as dug, with a puddle of earth or mud, and pack with moss.

Evergreens will be much benefited in transplanting if protected from wind and sun until they begin to take hold of their new soil. This can be done by placing barrels or boxes over them. The spring winds are specially very hard on transplanted Evergreens. Little care and good judgment will insure their success, while neglect will mean failure.

See paragraphs 15 to 19, page 2.

	PRICES					
	Packed F. O. B. Denison.			Prepaid if in orders of \$5.00 or more.		
	Each.	Doz.	100.	Each.	Doz.	100.
<b>Arborvitae—Golden Compact Conical.</b> Of compact form, globular or cone shaped. Beautiful specimens.						
6 to 10-inch. ....	\$0.15	\$1.50	\$12.00	\$0.17	\$1.75	\$13.00
10 to 18-inch. ....	.25	2.50	20.00	.30	3.00	22.00
18 to 24-inch. ....	.40	4.25	35.00	.50	5.50	40.00
<b>Arborvitae—Golden Compact Pyramidal.</b> Of beautiful compact form, tall spear or pyramid shape. Beautiful specimens.						
6 to 12-inch.....	.15	1.60	13.00	.17	1.85	14.00
12 to 20-inch.....	.25	2.75	22.00	.30	3.25	27.00
20 to 26-inch.....	.40	4.25	36.00	.50	5.50	41.00
26 to 32-inch.....	.50	5.50	45.00	.65	6.75	55.00
<b>Arborvitae—Chinese.</b> Dark green, more open in growth than the Golden, and more rapid in growth than the Golden.						
8 to 15-inch.....	.15	1.50	12.00	.18	1.85	14.00
15 to 24-inch.....	.25	2.50	20.00	.30	3.50	24.00
24 to 36-inch.....	.35	3.65	28.00	.50	5.00	36.00
<b>Arborvitae—Siberian.</b> Golden, globose or round. slow growing.						
12 to 18-inch. ....	.30	3.25	.....	.35	3.75	.....

Coniferous Evergreens—Continued

	PRICES					
	Packed F. O. B. Denison.			Prepaid if in orders of \$5.00 or more.		
	Each.	Doz.	100.	Each.	Doz.	100.
See paragraphs 15 to 19, page 2.						
<b>Cedrus Atlantica.</b> Of same shape as the Cedrus Deodora, but much slower grower, which makes it more desirable. Handsome blueish-green with shorter needles than the Deodora. Have only a few specimens 2 to 3 feet, 4-year. .... (None smaller in stock.)	.75	8.00				
<b>Trailing Juniper.</b> Dark green variety, very hardy in the South, grows low trailing on the ground. Have only a few specimens three feet in diameter. .... (None smaller in stock.)	1.00	11.00				
<b>Austrian Pine.</b> (Pinus Austriaca.) Slower grower than the White or Yellow Pine, endures heat of the South well. Dark green. 6 to 12-inch. .... 12 to 15-inch. .... 15 to 21-inch. ....	.15 .20 .25	1.50 2.00 2.50	12.00 15.00 20.00	.17 .23 .30	1.75 2.40 3.00	13.00 17.00 24.00
<b>Colorado Blue Pine.</b> (Pinus Ponderosa.) Has long needles and very graceful. Endures climate here well. Same sizes and prices as Austrian Pine. (See above.)						
<b>Scotch Pine.</b> (Pinus Sylvertris.) Dwarfish, compact habit; of lighter green than Austrian Pine. With longer needles than Austrian, but not so long as the Colorado Pine. Same sizes and prices as Austrian Pine. (See above.)						

Broad Leaved Evergreens

These comprise such Evergreens as Magnolia, Cape Jasmine, Laurel, etc. The same precautions must be observed in transplanting as with Conifers, and it is far safer and better, in addition to these precautions, to have the leaves removed, from most kinds, when taken up, and let them put out a new set of leaves. After being carefully planted and properly watered, it is well to mulch with coarse material to prevent rapid drying out.

	PRICES					
	Packed F. O. B. Denison.			Prepaid if in orders of \$5.00 or more.		
	Each.	Doz.	100.	Each.	Doz.	100.
<b>Prices.</b> See full explanation under paragraphs 15 to 19, page 2.						
<b>Cape Jessamine.</b> A very handsome shrub of glossy evergreen leaves. Blooms in May and sometimes throughout the summer and fall, exquisitely beautiful, fragrant, camelia-like, pearly double white flowers. Hardy from Red River southward. 4-year, 2 feet through. .... 4-year, 18 inches through. .... (Have none smaller in stock.)	\$0.75 .50	\$8.00 5.00	\$60.00 40.00	\$0.90 .65	\$10.00 6.00	\$80.00 46.00
<b>Magnolia Grandiflora.</b> The grandest of all evergreens and flowering trees. Has large, glossy, bright green leaves. Succeeds throughout Texas and Oklahoma, as well as in other southern states. By clipping off all but a few of the tip leaves when taken up, and treated as in our handling, they are readily transplanted. We do not clip the leaves off unless so instructed. 1-year Seedlings, 3 to 4-inch. .... 6-year, 5 to 8 feet, \$2 to \$5. (Have no intermediate sizes in stock this season.)	.10	.90		.11	1.00	
<b>Euonymus Japonica.</b> An evergreen similar in appearance to Box but with larger, more glossy leaves and more rapid grower than the Box. Fine for single specimens. Also makes pretty hedging plants for walks and borders, as it does not grow near so rapidly as the privets. 6 to 12-inch. .... 12 to 18-inch. .... 18 to 24-inch. ....	.15 .20 .30	1.50 2.00 3.00	11.00 15.00 23.00	.17 .23 .35	1.75 2.40 4.00	12.60 17.00 28.00
<b>Euonymus Pulchelus.</b> A very dwarf plant with exceedingly small leaves, scarcely ever exceeding 8 to 12 inches high. 2-year, 4 to 5 inches. ....	.25	2.50		.27	2.75	
<b>Evergreen Box, Dwarf.</b> Used for specimens, or edging walks. Grows slowly. Will get to be 10 feet high in about 25 years' time. 1-year, 3 to 5-inch. ....	.15	1.50		.17	1.75	
<b>Holly.</b> We only have in stock this season some very large specimen trees that would do for nearby places. Sizes, 4 to 8 ft.; heavy from \$2 to \$5 each.						



Christmas Trees

We have a lot of overgrown, Red Cedar and Holly from 5 to 10 feet high, from 3 to 7 feet through, which, unless much care is taken, are too large for transplanting. These can be cut off at or just under the ground and make fine Holiday trees or the greens used for decorating. Price, 50 cents to \$1 each at nursery. Packing and delivery extra.

Hedging Plants

See paragraphs 15 to 19, page 2.	PRICES					
	Packed F. O. B. Denison.			Prepaid if in orders of \$5.00 or more.		
	Each.	Doz.	100.	Each.	Doz.	100.
<b>Amour Privet.</b> Darker green and more nearly evergreen than California Privet. Plant more spreading than California Privet, and will endure more cold. Not so easy to root from cuttings as the California, and for this reason stock is limited.						
1-year, 1 to 2-foot. . . . .	\$0.15	\$1.25	\$10.00	\$0.17	\$1.70	\$11.00
2-year, 2 to 3-foot. . . . .	.25	2.50	.....	.30	3.25	.....
<b>California Privet.</b> One of the most popular; used for screening or hedging purposes around yards and lawns; also splendid for single specimens. Nearly evergreen.						
1-year, 1 to 2-foot. . . . .	.10	.75	4.00	.11	.90	5.00
2-year, 2 to 3-foot. . . . .	.15	1.25	6.00	.18	1.75	8.00
3 to 4-foot. . . . .	.25	2.50	.....	.30	3.25	.....
<b>Hardy Orange.</b> (Citrus Trifoliata.) This has proven by test here one of the most beautiful and efficient hedges known. In three years will turn stock. Does not sprout. As tap roots go straight down, does not exhaust soil any great distance away. Has proven perfectly hardy at 15 degrees below zero. In spring is full of beautiful white flowers, and full of yellow fruit in fall. It is easily transplanted.						
1-year, 4 to 5-inch. . . . .	.10	.75	4.00	.11	.80	4.50
2-year, 6 to 15-inch. . . . .	.15	1.25	7.00	.17	1.40	8.00
<b>Euonymus Japonica.</b> An evergreen similar in appearance to Box but with larger, more glossy leaves and more rapid grower than the Box. Fine for single specimens. Also makes pretty hedging plants for walks and borders, as it does not grow near so rapidly as the privets.						
6 to 12-inch. . . . .	.15	1.50	11.00	.17	1.75	12.00
12 to 18-inch. . . . .	.20	2.00	15.00	.23	2.40	17.00
18 to 24-inch. . . . .	.30	3.00	23.00	.35	4.00	28.00

Perennials—For Bedding

PRICES		
Packed, F. O. B. . . . .	\$0.10	\$0.70
	Each	Per 12
Packed and prepaid. . . . .	.12	.85
<b>Iris.</b> A fine bedding perennial, blooming early in spring, with double flag-like flowers, in various shades of blue and purple. We have an assortment of 10 of the best German varieties.		
<b>Zebra Grass.</b> The prettiest and most enduring of all grasses. Cross striped with thin lines of white. Makes soft plumes in fall.		
<b>Pampas Grass.</b> A strong growing grass, producing fine white plumes for winter decorating.		



# Spray Pumps and Sprayers

Spraying to combat plant diseases, insects and fungus troubles has become such an important necessity, we will take pleasure to assist our customers to get the best sprayers at the lowest prices.

We do not keep any sprayers in stock, but same can be sent direct from the factory to the buyer. This enables us to secure them at a less cost than if we carried in stock, as we can save the freight charge from factory to our place and also cost of keeping in stock. We are able to get them direct from the factory at a discount, and as we will be at no expense, we give our customers the benefit of the discount we are able to obtain. We describe below a few of the most popular sizes, but we can also secure other sizes to your needs. The retail price of the first described is \$8.50, but by having it sent direct from factory the cost, as noted, is \$6.75 f. o. b. factory. Even when express or freight from factory is added to this it will not be as much as the retail price of \$8.50, which we would have to charge if we went to the expense of having them brought here and carried in stock.

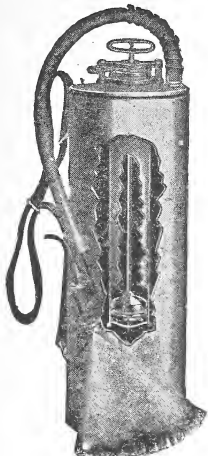
## THE AUTO-SPRAY No. 1.

### THE WORLD'S STANDARD COMPRESSED AIR SPRAYER.

Adapted for every variety of spraying where a hand sprayer can be used. Made in heavy brass or galvanized iron as desired, and has tank capacity of three gallons of solution. The pump is of heavy brass, 2 inches in diameter, and two or possibly three pumpings will empty the tank under higher and more constant pressure than any other knapsack sprayer. The brass tank will withstand chemical solutions, and is recommended, also the Auto-Pop shut-off, which is automatic in action and operates a self-cleaning wire through the nozzle.

Net Cash

Auto-Spray No. 1-A, brass tank, stop-cock. . . . .	\$6.75
Auto-Spray No. 1-B, brass tank, auto-pop. . . . .	7.65
Auto-Spray No. 1-C, galv. tank, stop-cock. . . . .	4.50
Auto-Spray No. 1-D, galv. tank, auto-pop. . . . .	5.40
Brass 2-inch Extensions. . . . .	.45



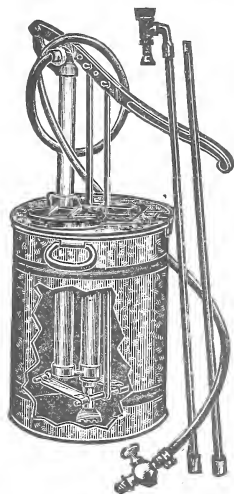
## THE AUTO-SPRAY No. 3-B.

### THE BEST WHITEWASH AND PAINTING MACHINE AND GENERAL PURPOSE SPRAYER EVER MANUFACTURED.

This is a strong, powerful hand sprayer with a capacity of 8 gallons of mixture. It is perfectly adapted to all-around use, for tall trees, shrubs and vines, as well as for applying whitewash or cold water paints. It is as simple as it is strong in construction. The reservoir is made of heavy galvanized steel, the pump being all brass. An agitator attached to the handle keeps the solution thoroughly mixed. Easily carried from place to place or mounted on a wagon. Absolutely the most popular for applying whitewash and paints. Furnished with complete equipment, which includes 8 feet of the best 3-ply discharge hose, 8 feet of iron extension, lever shut-off and vermored nozzle.

Net Cash

Auto-Spray No. 3-B, galv. tank, with full equipment. . . . .	\$11.20
Auto-Spray No. 3-A, brass tank, with full equipment. . . . .	13.60



## THE AUTO-SPRAY No. 24.

### BARREL SPRAYER FOR ORCHARD AND FIELD CROPS.

For those who require a barrel sprayer of exceptional durability and high pressure, this machine is specially recommended. It may be operated all day without fatigue, and is warranted to operate four nozzles if required. All working parts and valves are fully exposed and instantly get-at-able. The plunger is fitted with outside graphite packing which can be readily adjusted, and will seldom require renewing. The air chamber is large and insures a steady, constant pressure.

Net Cash

Auto-Spray No. 24, pump only. . . . .	\$12.80
Mounted on barrel. . . . .	16.00
20 feet 3-ply 1/2-inch discharge hose. . . . .	2.88
Bamboo brass lined extension, with stop-cock and drip shield, length up to 10 feet. . . . .	2.40
Non-Clog Atomic Nozzle, brass. . . . .	1.00

### NON-CLOG ATOMIC NOZZLE.

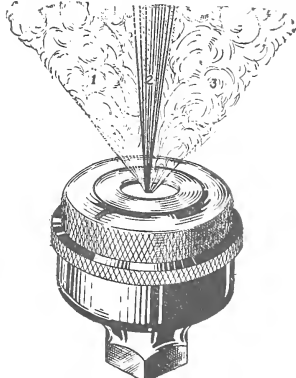
This nozzle is intended for use with all barrel pumps and power sprayers. It is made of cast bronze or aluminum and is fitted with standard 1/4-inch connections of standard make.

It is positively the only nozzle that will not clog, despite the claims of other manufacturers. Can be adjusted by a simple mechanism to throw every gradation of spray. Each nozzle is furnished with four discs, with apertures of different size, giving the nozzle capacity of one, two, three or four vermoreds, according to the disc that is used.

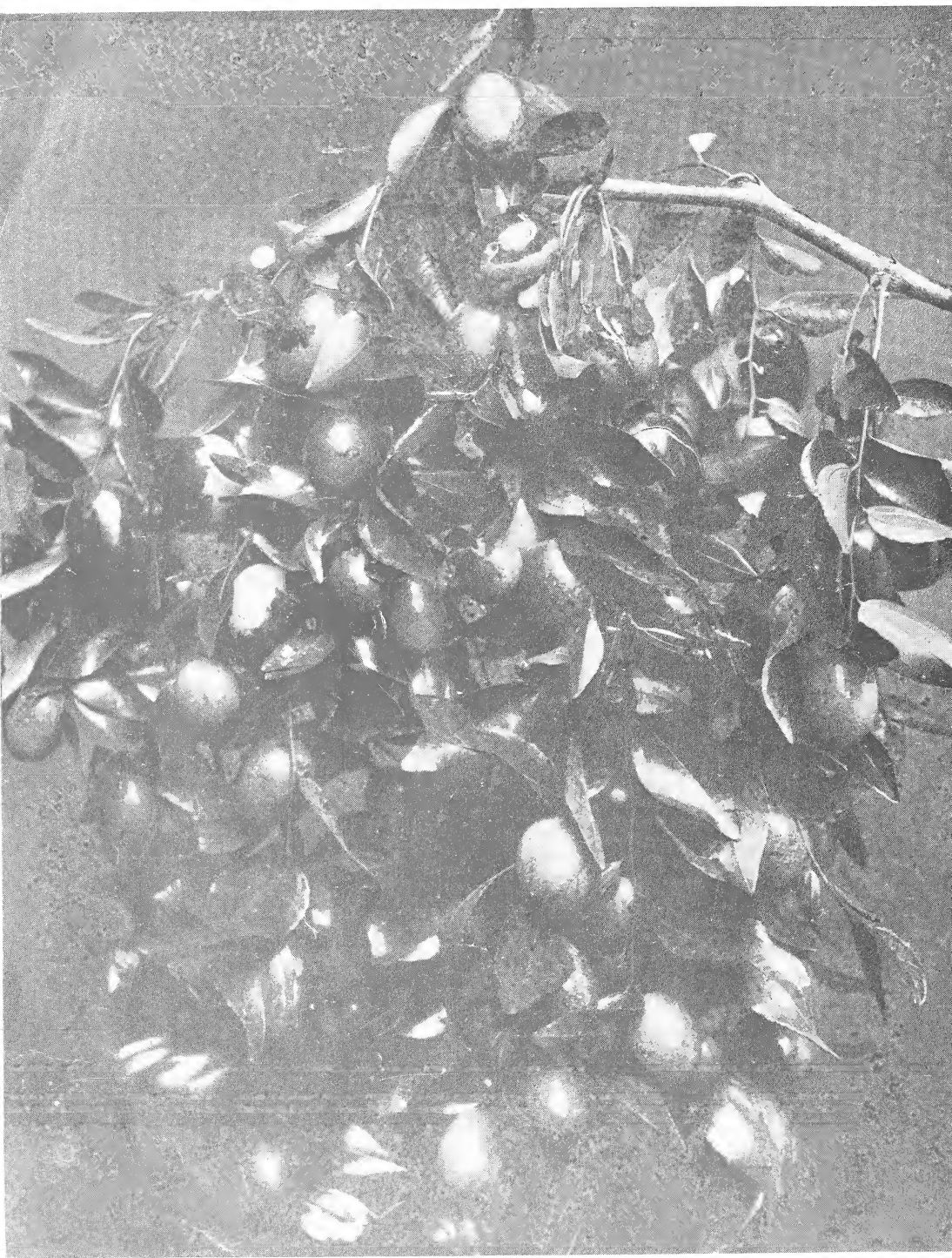
Net Cash

Non-Clog Atomic Nozzle, brass. . . . .	\$1.00
Non-Clog Atomic Nozzle, aluminum. . . . .	1.20

We will furnish you a complete spray pump catalogue on request, showing the most complete line of spray machinery in the United States. The above are leading styles for all common uses.







JUJUBE, (*Zizphus Jujuba*)  
Reduced one-half

THE MUNSON NURSERIES  
DENISON, TEXAS